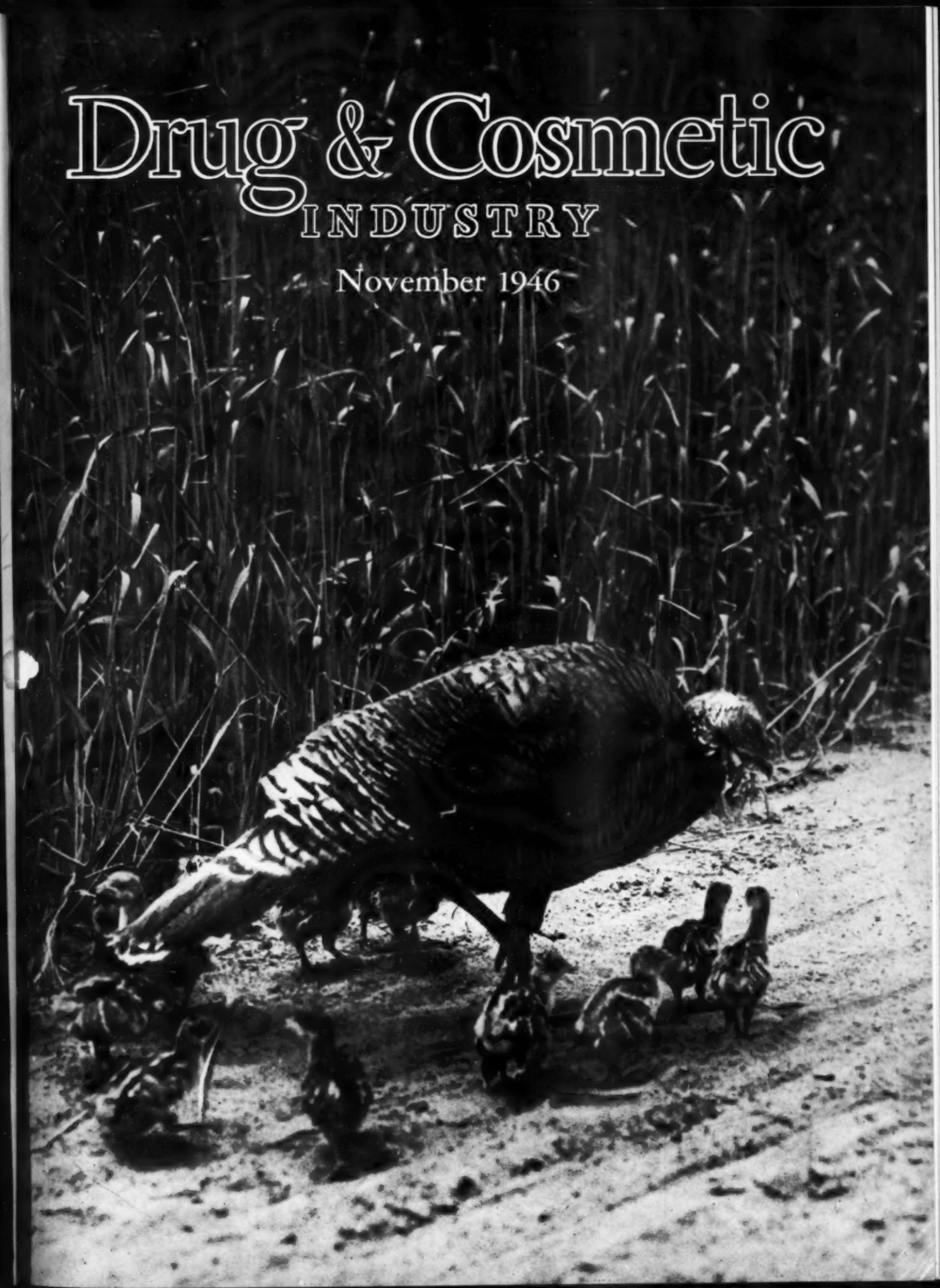
Drug & Cosmetic INDUSTRY

November 1946



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Drug & Cosmetic INDUSTRY

NOVEMBER 1946

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The Drug and Cosmetic Industry is published monthly by Drug Markets, Inc., Frazer V. Sinclair, President and Treasurer; Thomas R. Farrell, Vice-president and Secretary. Publication Address, 28 Renne Ave., Pittsfield, Mass., U. S. A. Editorial and General Office, 101 West 31st St., New York, 1, N. Y., U. S. A.

Business Manager, Frazer V. Sinclair; Advertising Representatives, P. W. Alexander, Walter M. Brauneiss, C. R. Keeley, Dwight H. Early, 100 No. LaSalle St., Chicago 2; Production Manager, Katherine Hyde; Circulation Manager, Harry G. Kelbly.

Subscription price—$3.00 a year, in advance, Foreign Countries, $5.00. Single copies, 35c; Back issues 50c. Entered as Second Class Matter, January 1, 1928, at the Post Office at Pittsfield, Mass., under the Act of March 3, 1879.

Member of Audit Bureau of Circulations.

Contents Copyrighted 1946 by Drug Markets, Inc.

Printed by Sun Printing Corp., Pittsfield, Mass. U. S. A.

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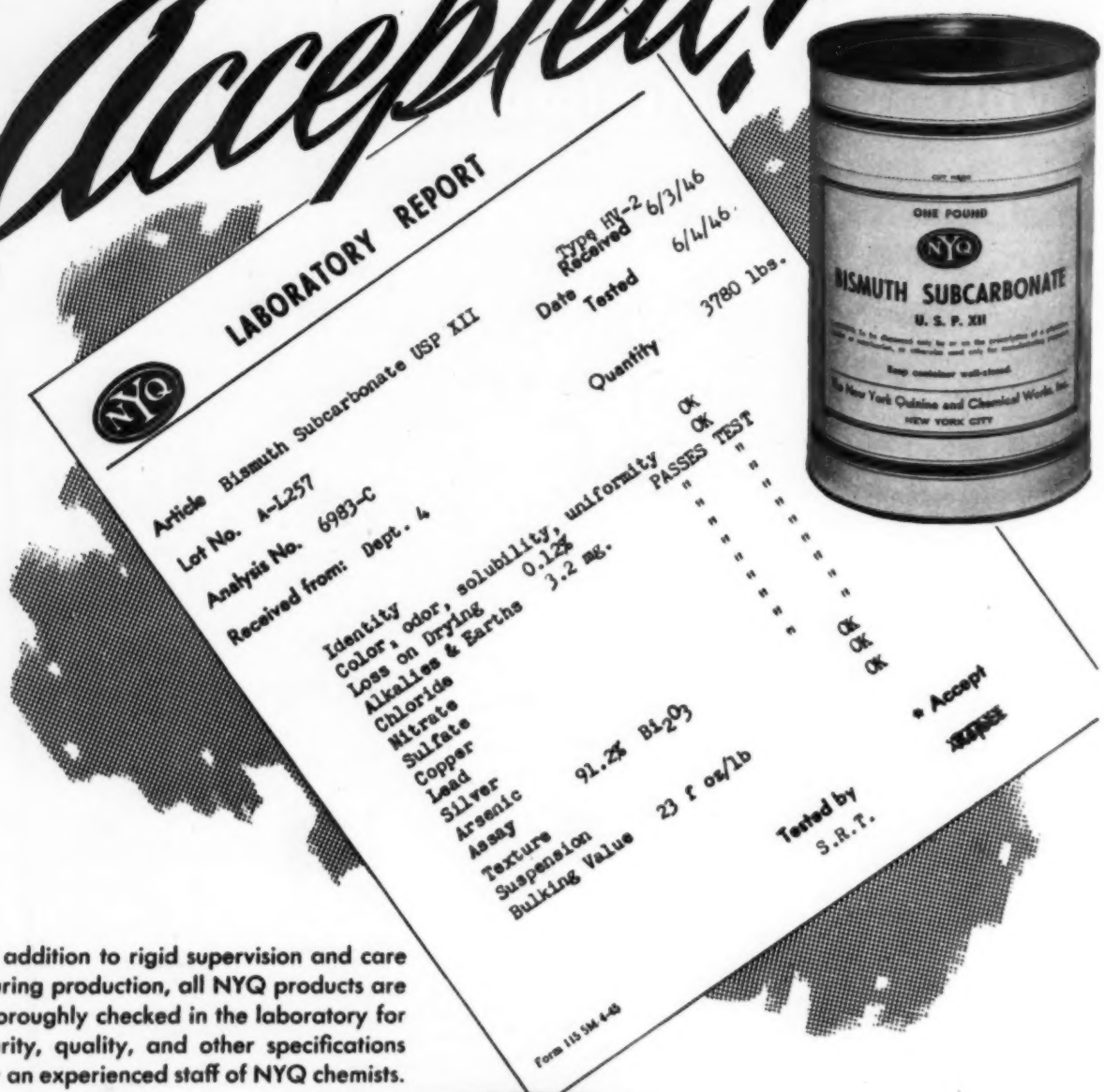

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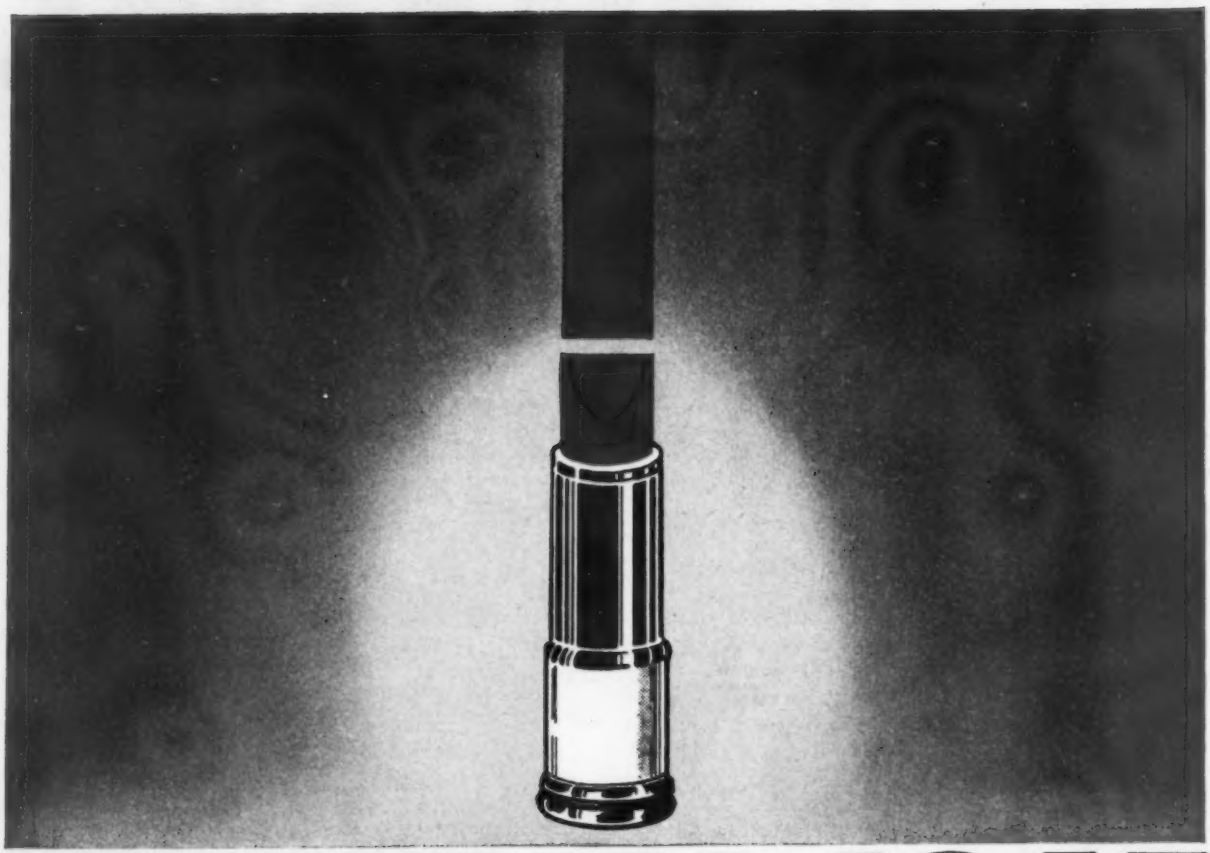

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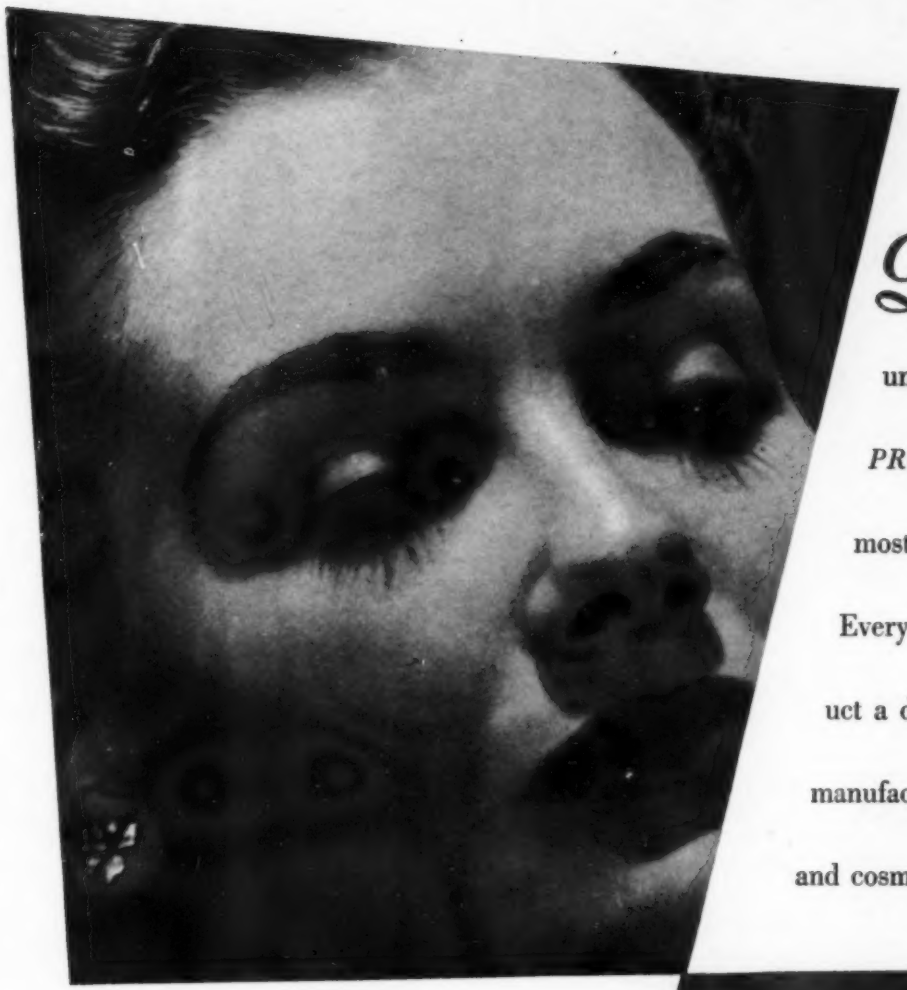

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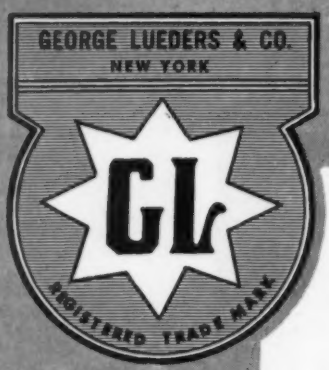

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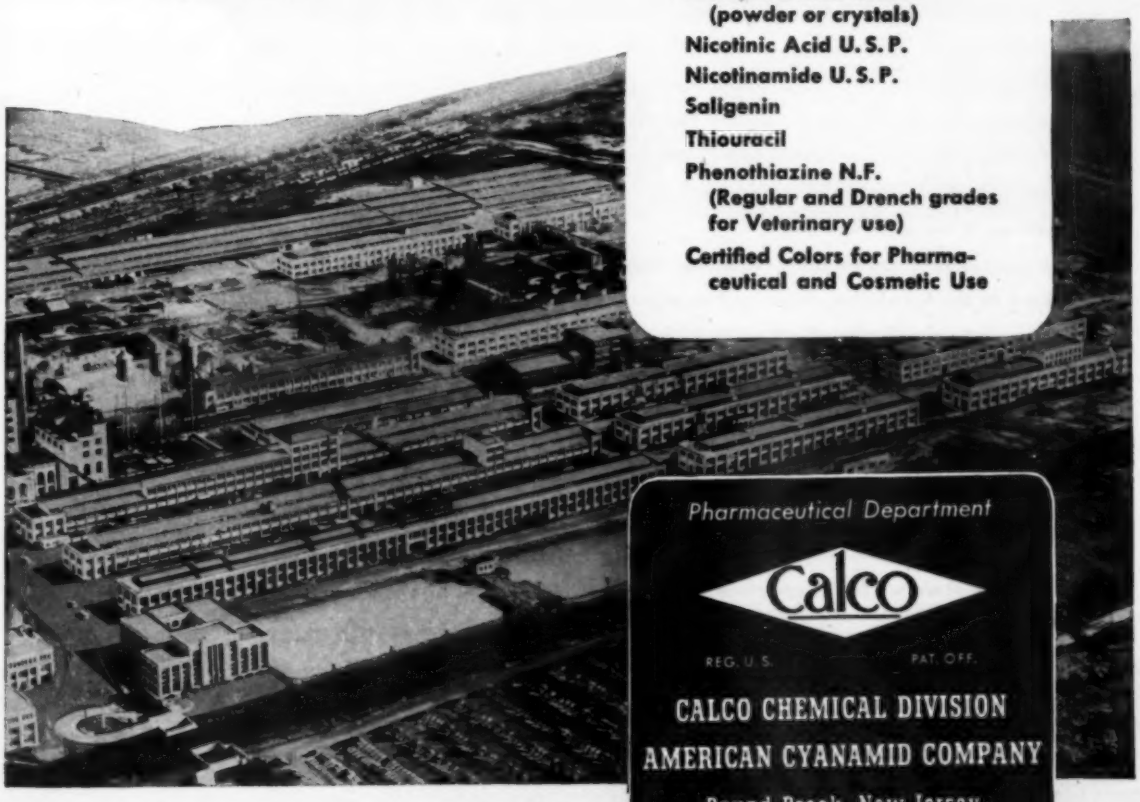

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100,000 Labeled Bottles

400,000 Powder Envelopes

THE INVISIBLE FACTORY that Stands Behind Your Label

Considering our extensive production facilities, it's an amazing fact – and no accident! – that not one consumer in a million knows our name! When we make your cosmetic or chemical product, our facilities become yours; our factory your own. Our quality standards are your protection; our economical "know-how" your assurance of a profitable operation. That's why Evans Chemetics is "The Invisible Factory" behind some of America's most respected labels. May we tell you how we can serve you?

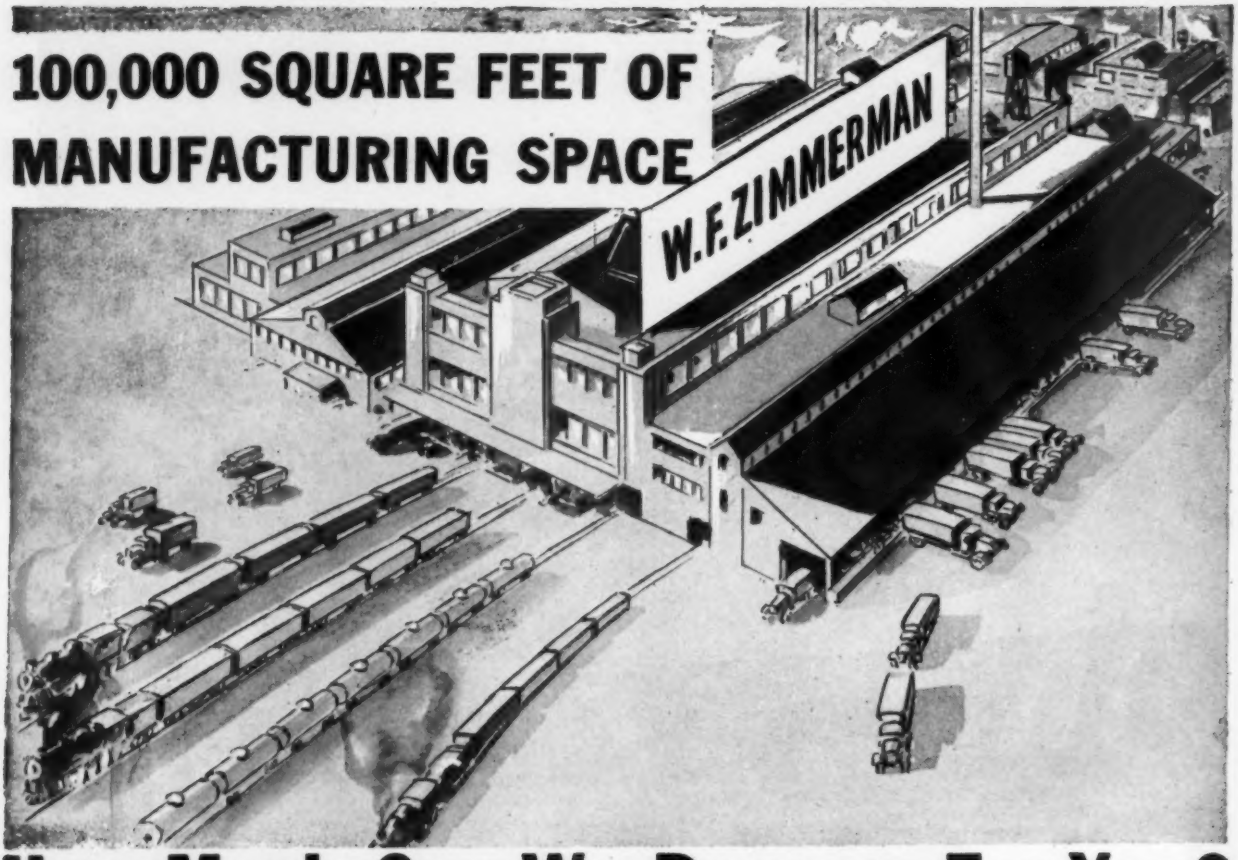
EVANS

Evans Chemetics INC.

250 EAST 43rd STREET, NEW YORK 17, N. Y.

In England, Evans Chemicals, Limited

100,000 SQUARE FEET OF MANUFACTURING SPACE



How Much Can We Reserve For You?

Yes, we have 100,000 square feet of the finest manufacturing space in the country—100,000 square feet ready to go to work to produce your cosmetics of superior quality in every classification, bulk or packaged.

What's more, our modern *high speed* production lines will cut your costs of both distribution and packaging. Our two factories are fully staffed to handle any order. Our exacting supervision insures accurate formulas and prompt deliveries. Railroad sidings on our premises speed up receiving and shipping 100%.

We can now handle a limited number of new orders for creams, powders, lotions, lipsticks, rouges, eye preparations, perfume, cologne and other specialties. Whether you want us to follow your specifications or ours, you are assured of high quality and efficient service.

Our new emollient lipstick is well worth investigation.

Write, wire or phone for complete information today.

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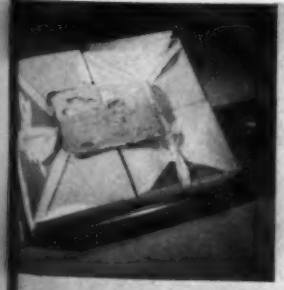
• Manufacturers • Packagers •

QUALITY Z INTEGRITY Z SERVICE

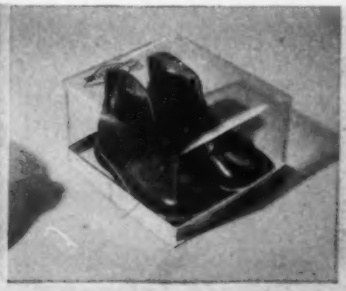
ETHOCEL SHEETING is different because . . .

. . . it's made from Dow Ethylcellulose. That's why this sheeting is so serviceable . . . so light, so long lasting . . . why it will stand up during shipment . . . take constant handling and shelf wear in its stride. Ethocel Sheeting is colorless, odorless, and tasteless . . . so it's safe in contact with food, as well as innumerable other products ranging from flowers to face powder. Packages made from this plastic are sparklingly clear . . . bright . . . brilliant in finish . . . and they stay that way. And Dow Ethylcellulose gives Ethocel Sheeting important fabrication advantages that mean manufacturing economy . . . it's easily heat formed . . . permits deep clear draws.

Ethocel Sheeting is different from other plastic packaging materials . . . because it possesses all those important properties vital to successful performance in packaging.



Park Square Mfg. Co.
In transparent containers of Ethocel Sheeting, stationery is doubly attractive—sells itself.



Moran Shoe Co.
Greater display prominence for any product is achieved with Ethocel Sheeting.

Ethocel Sheeting containers give flowers extra glamour that increases their attractiveness.

PLASTICS DIVISION
THE DOW CHEMICAL COMPANY • MIDLAND, MICHIGAN
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DOW
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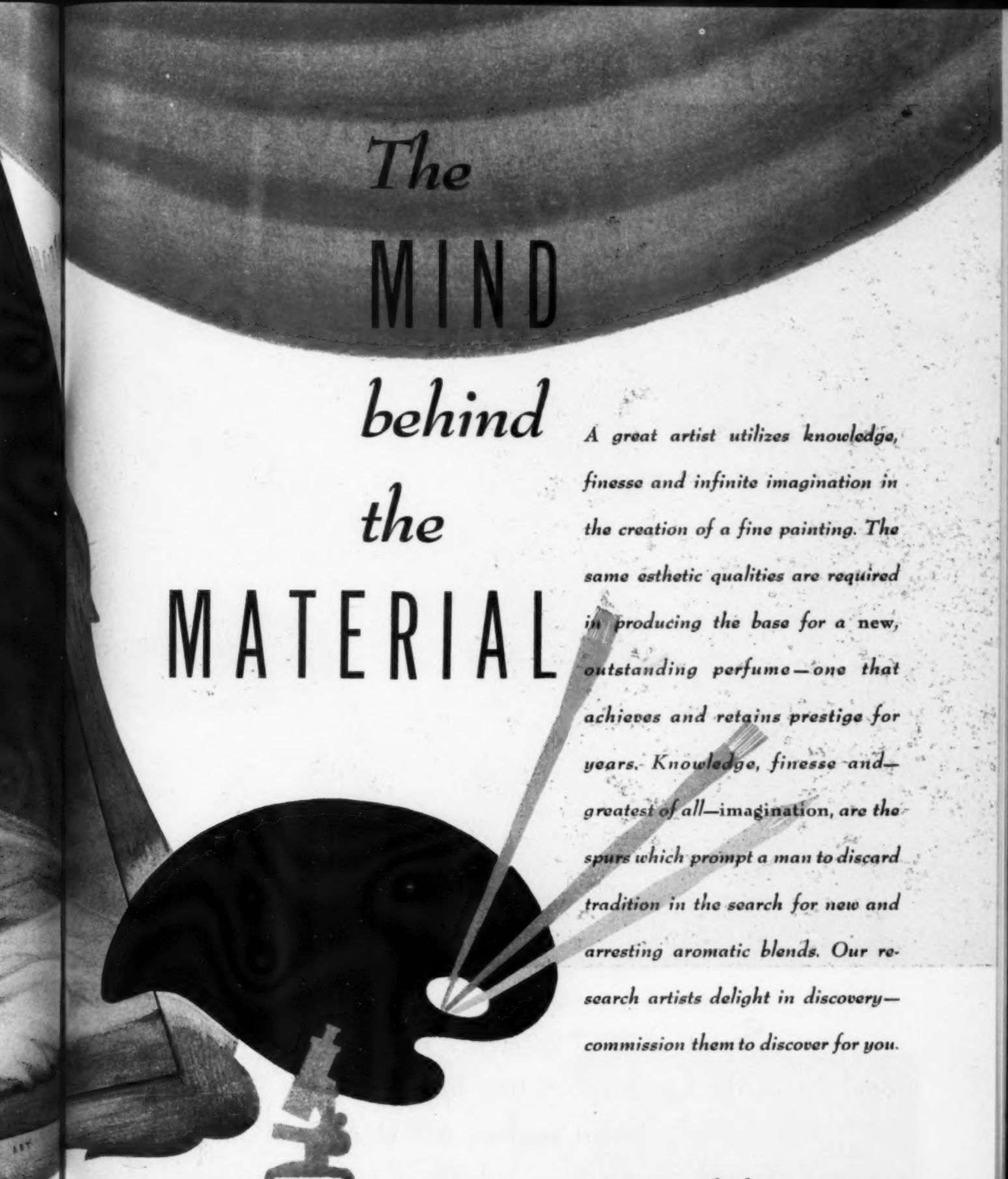
ETHOCEL SHEETING • SARAN • SARAN FILM

COURTESY OF THE METROPOLITAN MUSEUM OF ART



The MIND *behind the* MATERIAL

A great artist utilizes knowledge, finesse and infinite imagination in the creation of a fine painting. The same esthetic qualities are required in producing the base for a new, outstanding perfume—one that achieves and retains prestige for years. Knowledge, finesse and—greatest of all—imagination, are the spurs which prompt a man to discard tradition in the search for new and arresting aromatic blends. Our research artists delight in discovery—commission them to discover for you.

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acceptance

Smart users of cosmetics recognize the white opal jar as the container of fine products.

Smart packers use H-A Opal Jars.

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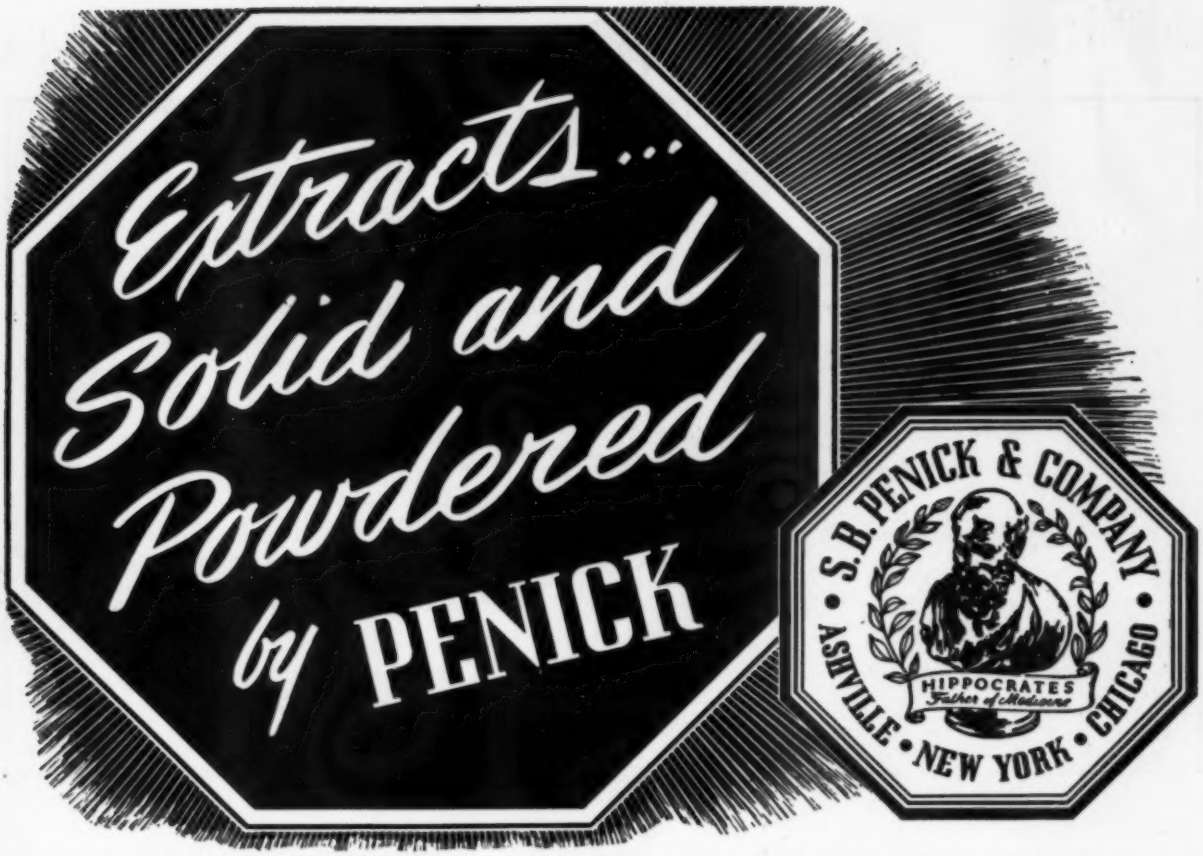

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He is now the exclusive representative in the Western Hemisphere for:

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for better

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An excellent hydrophilic base containing cholesterol, other sterols and Lanolin Alcohols that closely resemble those found in the fatty secretions of human skin. The cholesterol in Alcolan is in a fatty form more absorbable because of its ready miscibility with the secretions of the sebaceous glands. Lengthy complicated formulation is not necessary to obtain good results. Water alone, added to Alcolan produces a lustrous white cream of rich consistency possessing excellent emollient properties. Brilliant white creams with remarkably smooth texture and elegant cosmetic effect may be produced with Alcolan. These creams spread easily and will not dry out, cake or harden.

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Sanitary's Special Formula—Concentrated Liquid Soap cleans hair gently, thoroughly . . . leaves it brilliantly high-lighted and easily managed. Processed entirely in glass-lined equipment assuring purity throughout. Customers will enthusiastically re-order your shampoo when formulated with SF-CLS . . . Unsurpassed in performance.

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Mfrs. of Quality Soaps and Disinfectants Since 1921

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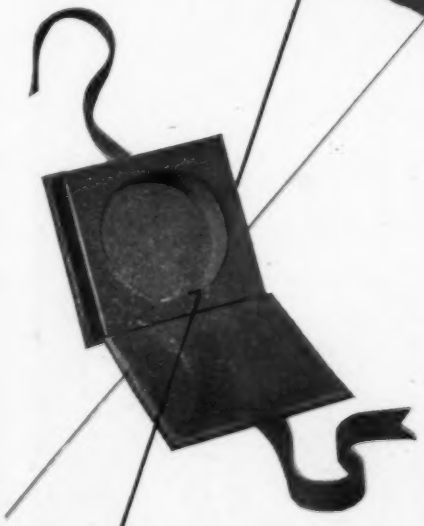

To her . . . and to all of us . . . the word has real meaning. For in her cosmetics . . . her perfumes and toiletries . . . there is unmistakable charm.

Enchanting, too, are the eye-appealing packages that signal *her* attention with color, design and craftsmanship. Inviting eye-attention . . . creating sales . . . Warnercraft packaging helps make your packaging . . . irresistibly enchanting!

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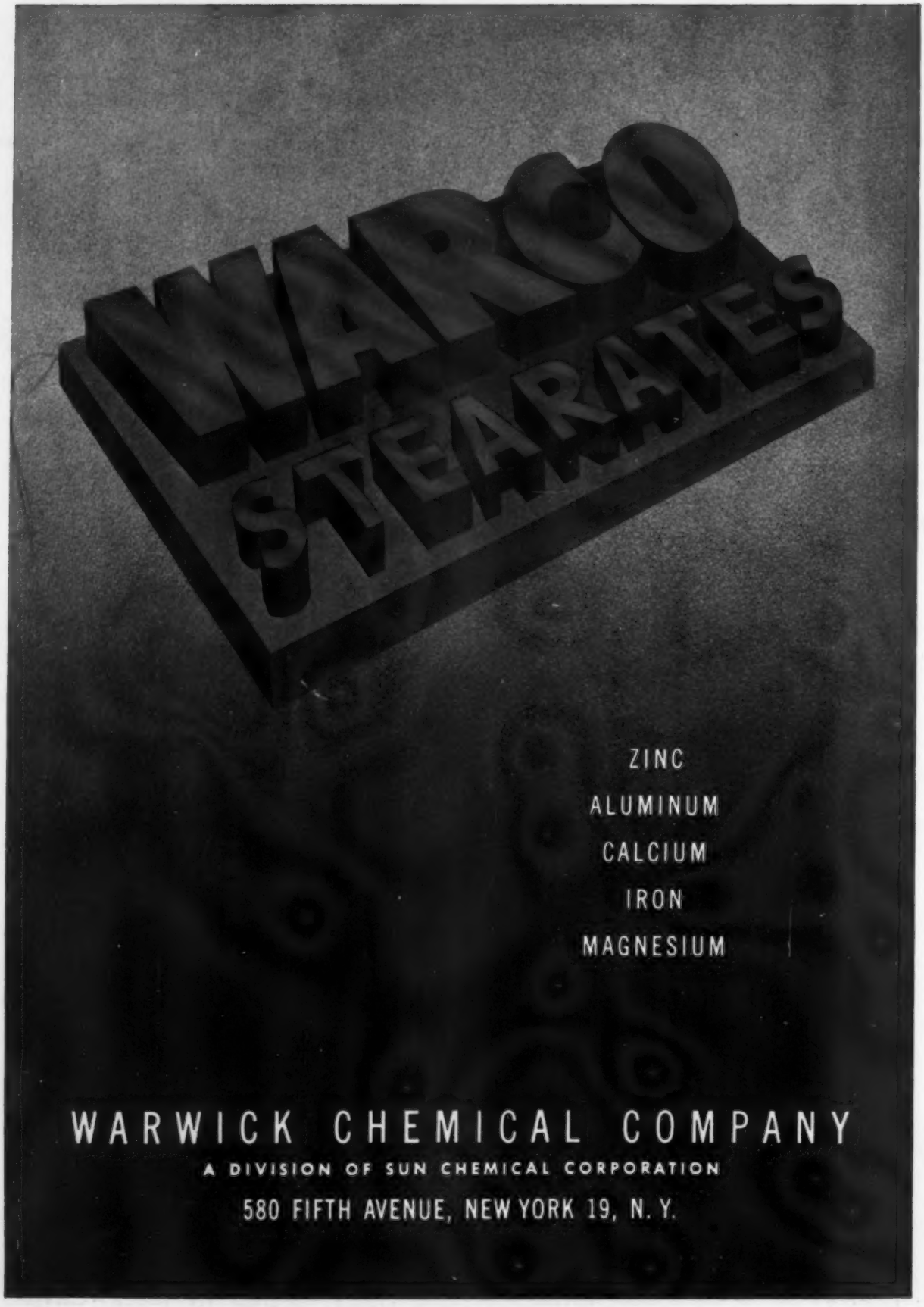
"THE FINEST WORD IN PACKAGING"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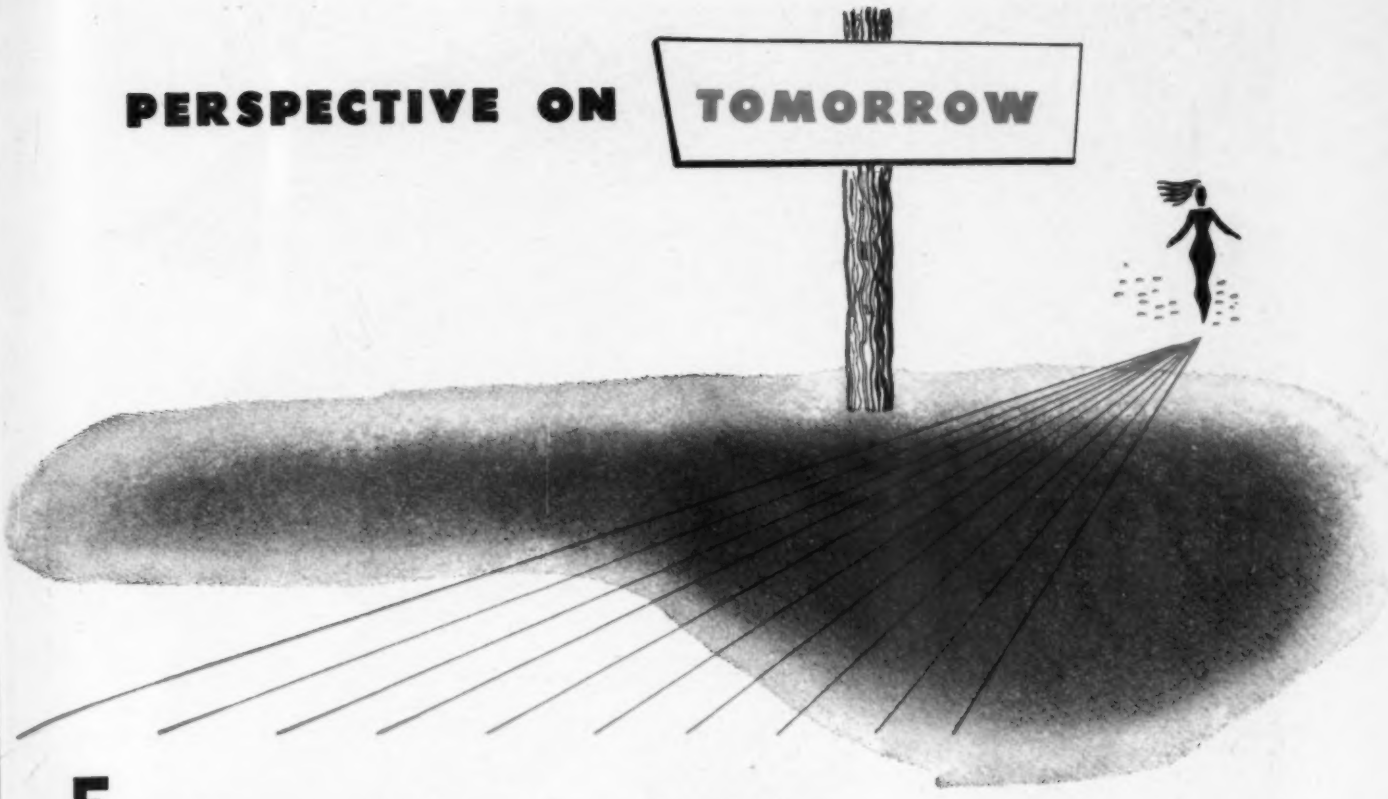
WARWICK CHEMICAL COMPANY
A DIVISION OF SUN CHEMICAL CORPORATION
580 FIFTH AVENUE, NEW YORK 19, N. Y.

PERSPECTIVE ON TOMORROW



From whichever perspective you view your markets for FINEST PERFUMES and COSMETICS, all lines lead to a single objective. Tomorrow . . . the next day . . . every day following, the pulse of your business will be the satisfying appeal and the constant acceptance of your products. Your confidence in accomplishing this is as strong as your Source of Supply in *MATERIALS* and in research.*

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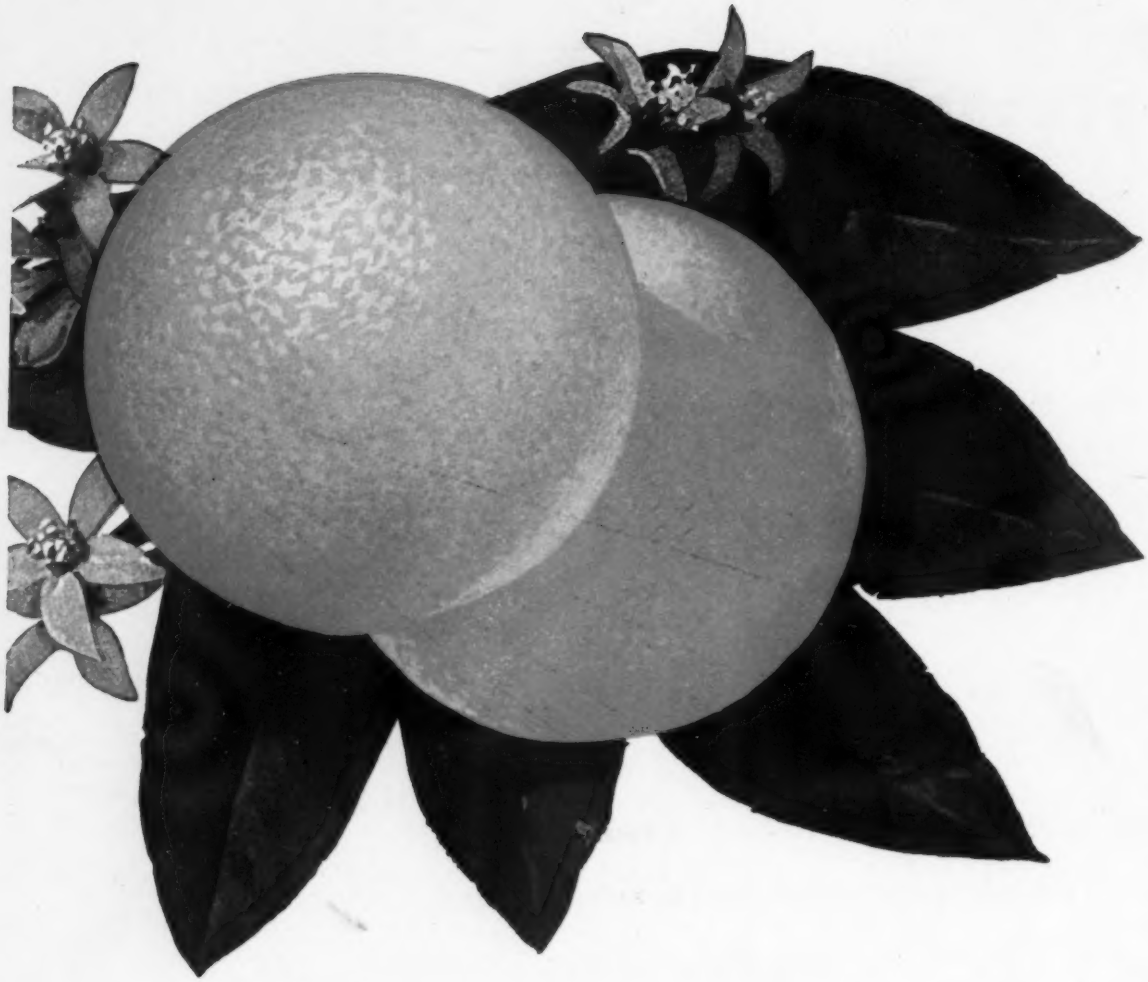
*In its 31st productive, cooperative year, FLORASYNTH has served manufacturers of finest Perfumes and Cosmetics through research and development with *better* Essential Oils, Floral Creations and Supreme Aromatics



You can't afford *not* to use it!

The flavor you put in your product is the *decisive ingredient*. For flavor is what the consumer buys. He judges *quality* by *taste*.

Exchange Oil of Orange gives you more *real orange flavor*, drop for drop or pound for pound, than any other orange oil. That's why more leading American manufacturers use it.

Compare Exchange Oil of Orange with any other offered. Give it all your tests for *quality*, *uniformity* and *strength*. Then you will buy Exchange Brand

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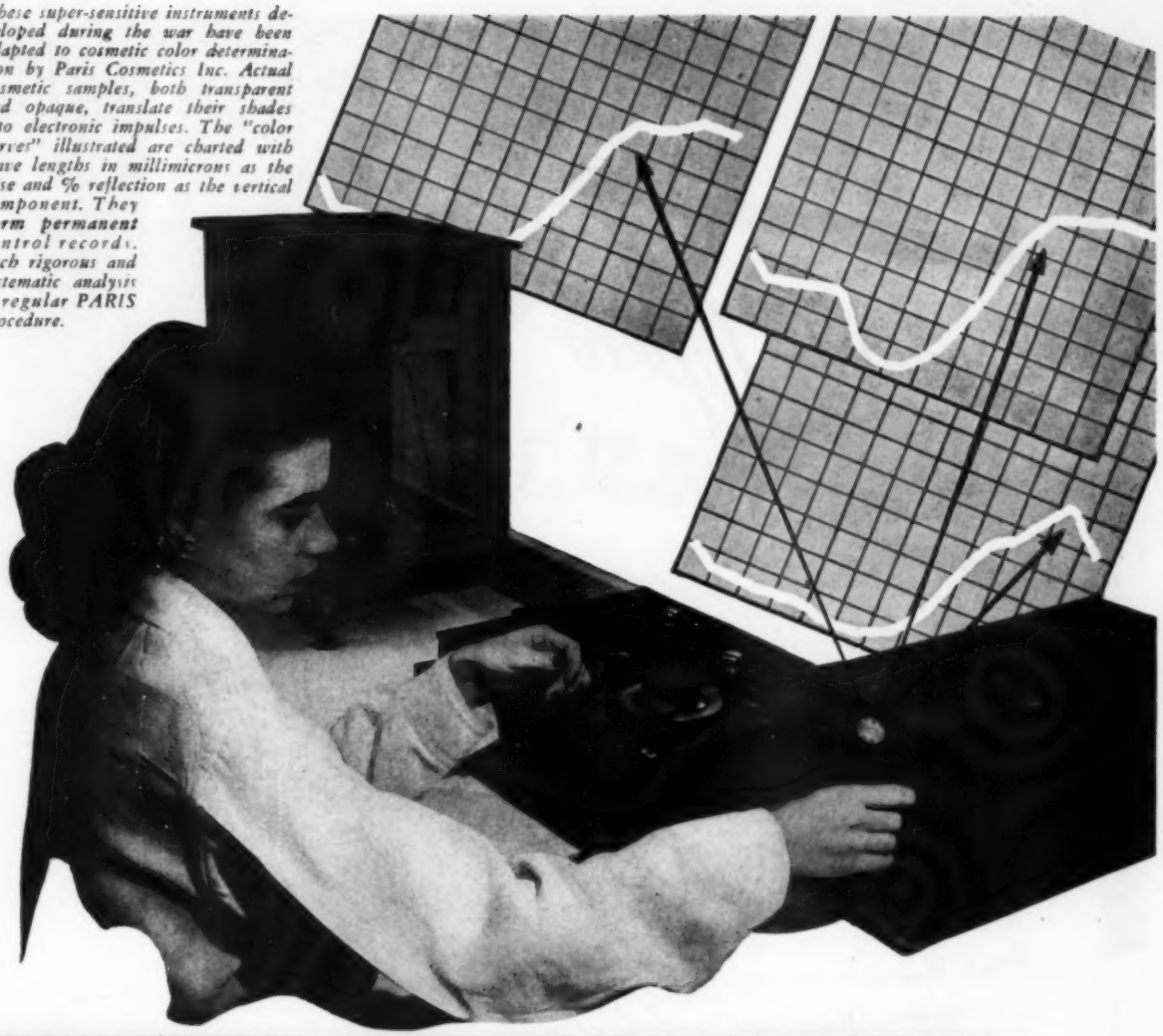
These super-sensitive instruments developed during the war have been adapted to cosmetic color determination by Paris Cosmetics Inc. Actual cosmetic samples, both transparent and opaque, translate their shades into electronic impulses. The "color curves" illustrated are charted with wave lengths in millimicrons as the base and % reflection as the vertical component. They form permanent control records. Such rigorous and systematic analysis is regular PARIS procedure.



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ANOTHER EXAMPLE OF *Paris* PIONEERING

"Matching by eye" is now out when it comes to lipstick, powder, rouge and other cosmetic shades. Every color writes its own electronic signature as a mathematical graph in the Paris Cosmetics laboratory. Every time you try to match lipstick "smears" on the back of your hand or start checking the shades of new face powder shipments, think of what this modern advance means to you. It's another Paris extra added to the high quality standards and reliability so important to stylists and purchasing agents seeking to improve lines or individual items. Consult Paris Cosmetics Inc. without obligation for creative suggestions.

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A rich fragrance suitable for moderate priced extracts and colognes.
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A delightfully soft, mellow, semi-floral fragrance ideally suited for colognes. Quite inexpensive.

Finished extracts and colognes made with the above fragrances available in bulk

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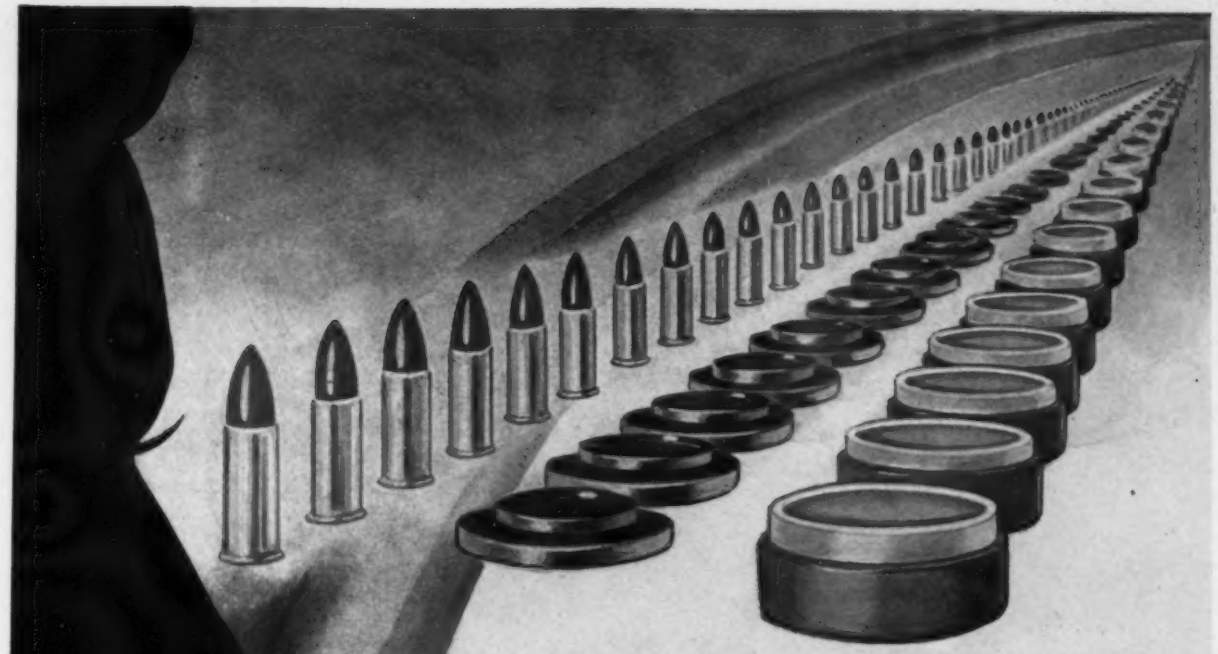

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UNIFORMITY

When a woman buys a cosmetic, she expects the precise shade she found in a previous purchase. Repeat sales depend upon *absolute* uniformity... one of the foremost qualities of H. KOHNSTAMM CERTIFIED COLORS.

H. KOHNSTAMM & CO., Inc., were the first creators of CERTIFIED PURE FOOD COLORS. And, through 96 years of development and research, the CERTIFIED COSMETIC COLORS have attained a precisely high degree of uniformity, strength and purity. Specify ATLAS COSMETIC COLORS for all your exacting requirements. You will find them thoroughly dependable.

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It really removes the sharpness of alcohol odor and lets the fragrance come through.

If you aren't already using it, write us for a sample of Tonkaire and directions for use. You'll really be amazed at the results!

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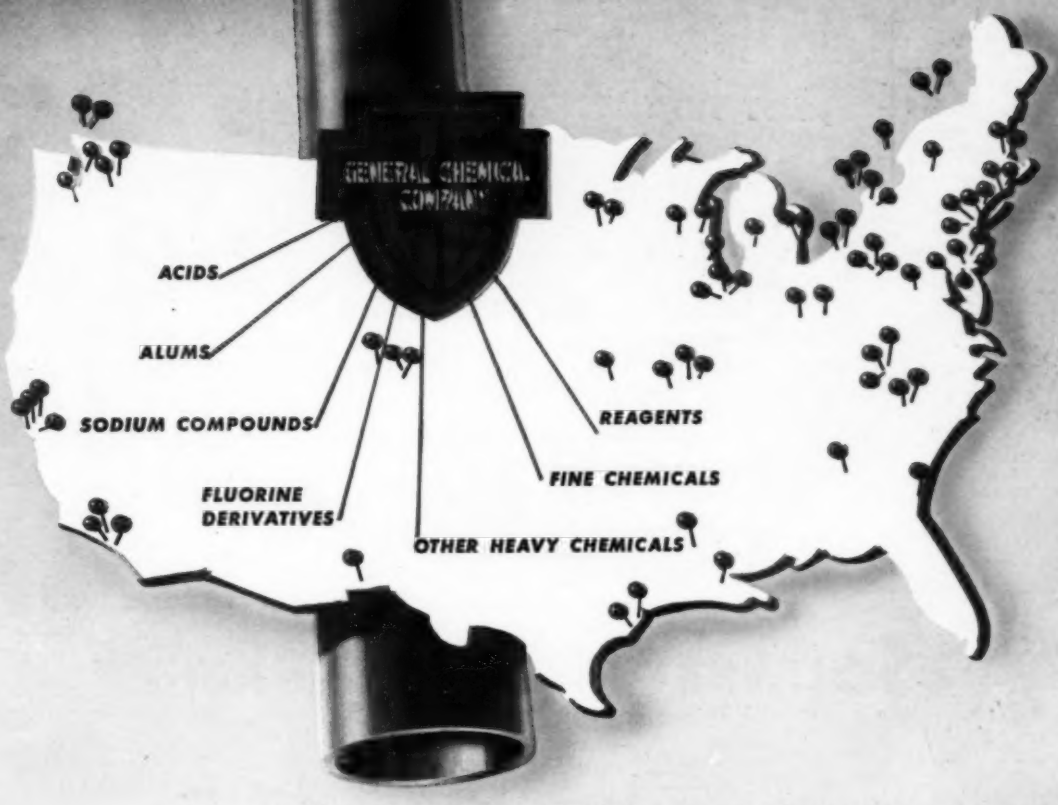
Supply Line for American Industry...



Here is the supply line of Basic Chemicals for American Industry. North, South, East or West . . . wherever the needs are greatest . . . there, too, are the heaviest concentrations of General Chemical *plants, warehouses,* and *technical service offices*—equipped and prepared to meet the chemical demands of the day.

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WITH ANISIC ALDEHYDE
DEPEND ON DU PONT
Have you discovered Anisic Aldehyde*? Do you know how it lifts ... intensifies ... gives your florals precious individuality? A colorless liquid with the piquant odor of hawthorne blossoms, it does its finest work as a base for hawthorne, lilac, heliotrope and new mown hay perfumes.
Anisic Aldehyde is stable in soaps ... important for use in cream and powder perfumes. There may be a real need for Anisic Aldehyde in your present line—but whatever the product, whatever the fragrance, see Du Pont early! You can always depend on Du Pont. E. I. du Pont de Nemours & Co., (Inc.), Organic Chemicals Dept., Aromatics Section, Wilmington 98, Del. Branch Offices: Boston, Charlotte, Chicago, New York, Philadelphia, Providence, San Francisco.
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...THROUGH CHEMISTRY
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Crystalline Penicillin —

Requires NO REFRIGERATION

This new form of Heyden Penicillin Sodium may be stored at room temperature. Refrigeration is not required.

Heyden Crystalline Penicillin Sodium is now available to selected pharmaceutical manufacturers in vials of 100,000, 200,000 and 500,000 units, for distribution under their own labels. Look for the supplementary statement "Manufactured by Heyden Chemical Corporation" on the penicillin label.

Heyden also manufactures amorphous Penicillin Sodium—vials of 100,000, 200,000 and 500,000 units and Penicillin in Oil and Wax in 10 cc. vials, 300,000 units per cc.

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Incarnations of the spirit of savoir faire are these new fragrances that have been created by our perfume laboratories: *Claudelle 5552—Cloches Bleu 4177—Blossoms of Cathay 4156-M—Clarinelle 5157—La Bellina 4147.* They are keyed to the sophisticated taste—to that wordly-wiseness that responds to—and welcomes—the unusual. We should like to submit these new creations to manufacturers interested in adding new prestige-building perfumes to their lines.

Savoir faire

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"Let prudence guide ye!"

Do you compound your own odors for soaps, cosmetics or perfume extracts?
Here is one of the most valuable materials ever furnished the perfumer.

Cyclamal

In three grades:
EXTRA 95-96% Aldehyde—$8.15 per lb.
CYCLAMAL 85% Aldehyde—$7.20 per lb.
CYCLAMAL FOR SOAP 53% Aldehyde
$5.15 per lb.

Special Prices in Quantity

As it is 5 times stronger than Hydroxy Citronellal it is one of the most economical raw materials the perfumer can use. In high priced items, the higher aldehyde content product has its place in some of the most exquisite extracts ever developed.

Ask for samples. Compare on quality. Calculate your cost savings.

Write for our complete line of fine Aromatic Chemicals.

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GENERAL DRUG COMPANY

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ESTABLISHED 1916 — GD — AROMATICS DIVISION

THE Heart OF YOUR COSMETIC IS Correct Perfuming . . .

Each subtle fragrance is rich and eloquent testimony to the inimitable creative skill of FELTON perfumers. Employ their art and their talent to your advantage.

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MANUFACTURERS OF PERFUMES, ESSENTIAL OILS, AROMATIC CHEMICALS AND FLAVORS

The first impression is important

but the second is the one that lasts

How does your product look when ready for use? Do the ingredients tend to separate? Give it an even and *lasting* distribution of color and body with Kraystay, the carrageen-base stabilizer made by Kraft.

First impressions are important. Many a woman will buy a product because it looks good, but when she goes to use it she will be disappointed if it seems watery, curdled, or "settled out." Many progressive manufacturers have found that Kraystay definitely improves their products through an even and *lasting* distribution of color and body.

This remarkable vegetable stabilizer, used in varied proportions, has unusual stabilizing, emulsifying, thickening, suspending and gelling properties. Kraystay is adaptable to use in cream lotions, hand lotions, toothpaste, cosmetics, pharmaceuticals, foods, and many other products of medium or low acidity.

Let Kraft technicians help you

Don't overlook the possibilities of improving your product. Call or write today stating the nature of your product. Or, if you wish to submit your formula, these experts will be glad to assist you in the application of Kraystay to your product.

FROM TINY FRONDS OF CARRAGEEN (edible Irish moss) gathered from the cold ocean floor, Kraft extracts a clear, pure vegetable gelose for use in the manufacture of Kraystay. Modern scientific laboratory control insures the uniform high quality of this consistently efficient stabilizer.

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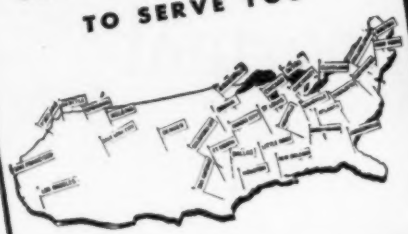

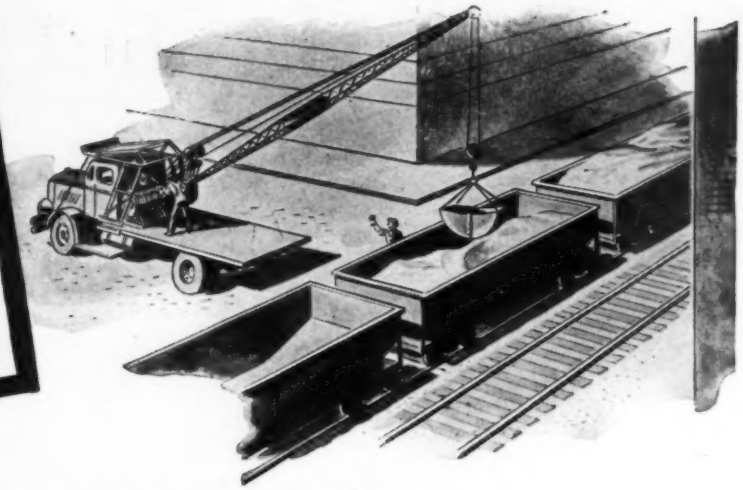

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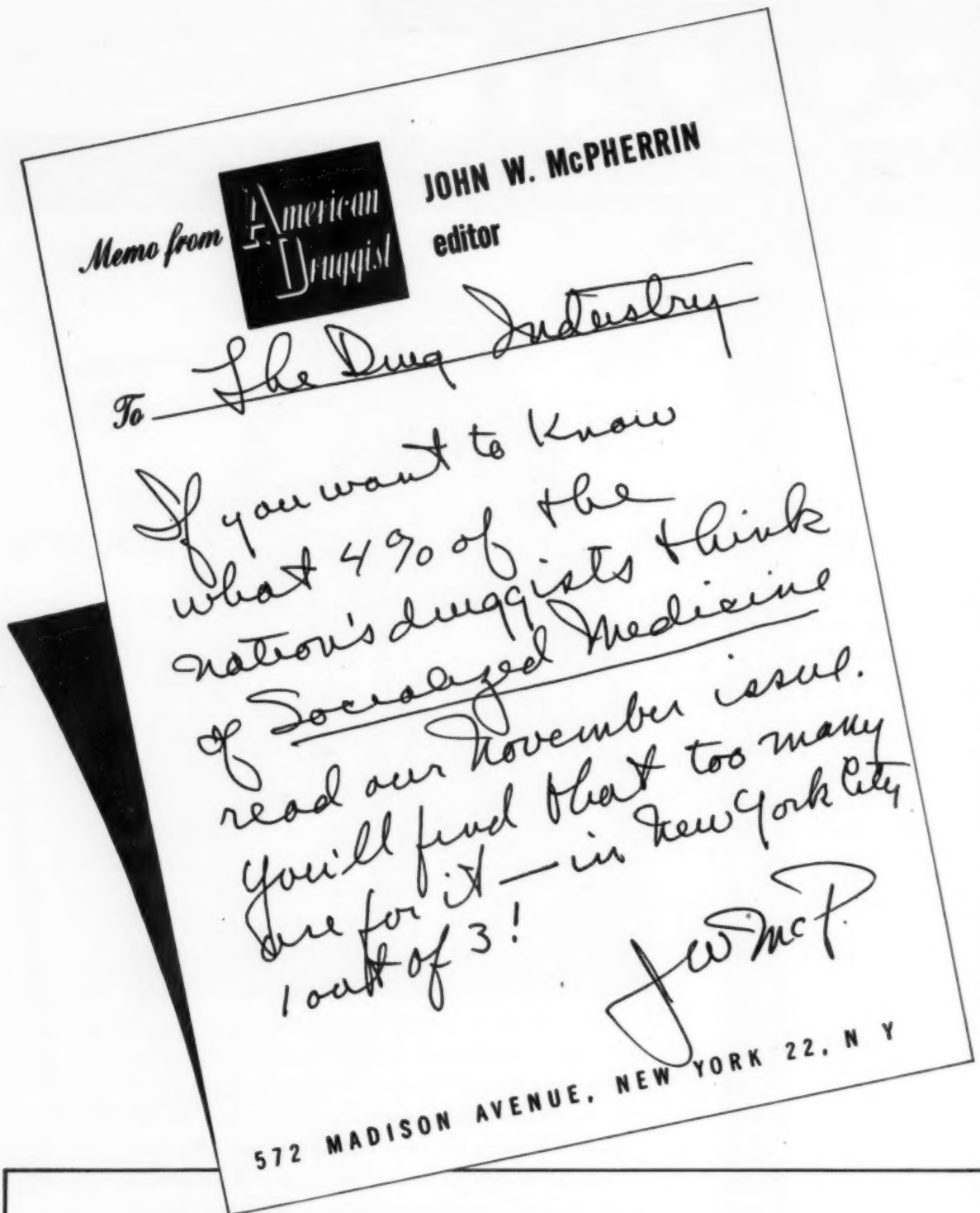
Memo from American Druggist
JOHN W. McPHERRIN
editor
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of Socialized Medicine
read our November issue.
You'll find that too many
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Aromatics

TURN
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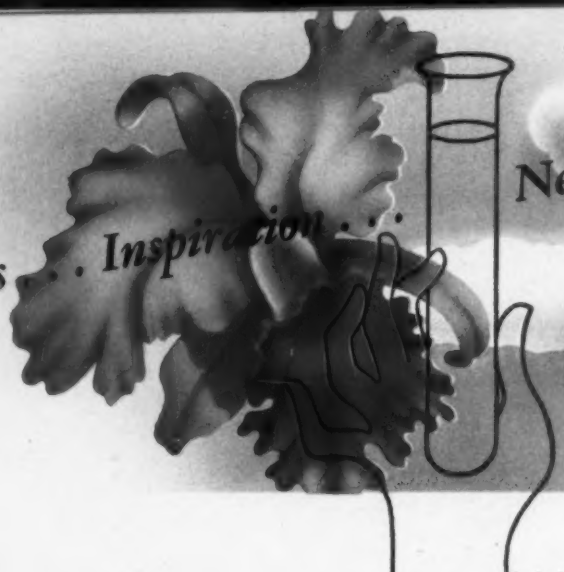

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In the new non-darkening PALE COLOR

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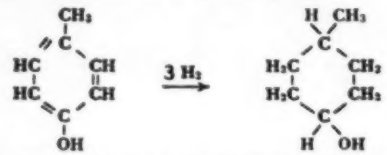

OTHER TYPICAL HYDROGENATIONS ARE:

1. Aldehydes to Primary Alcohols.
2. Ketones to Secondary Alcohols.
3. Oximes to Amines.
4. Nitriles to Amines.
5. Aliphatic Unsaturates to Saturates.
6. Hydrogenation of Heterocyclics.
7. Stabilization of Resins by Hydrogenation.

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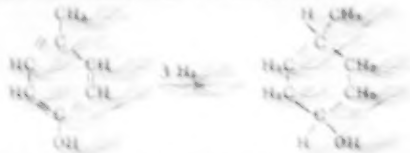

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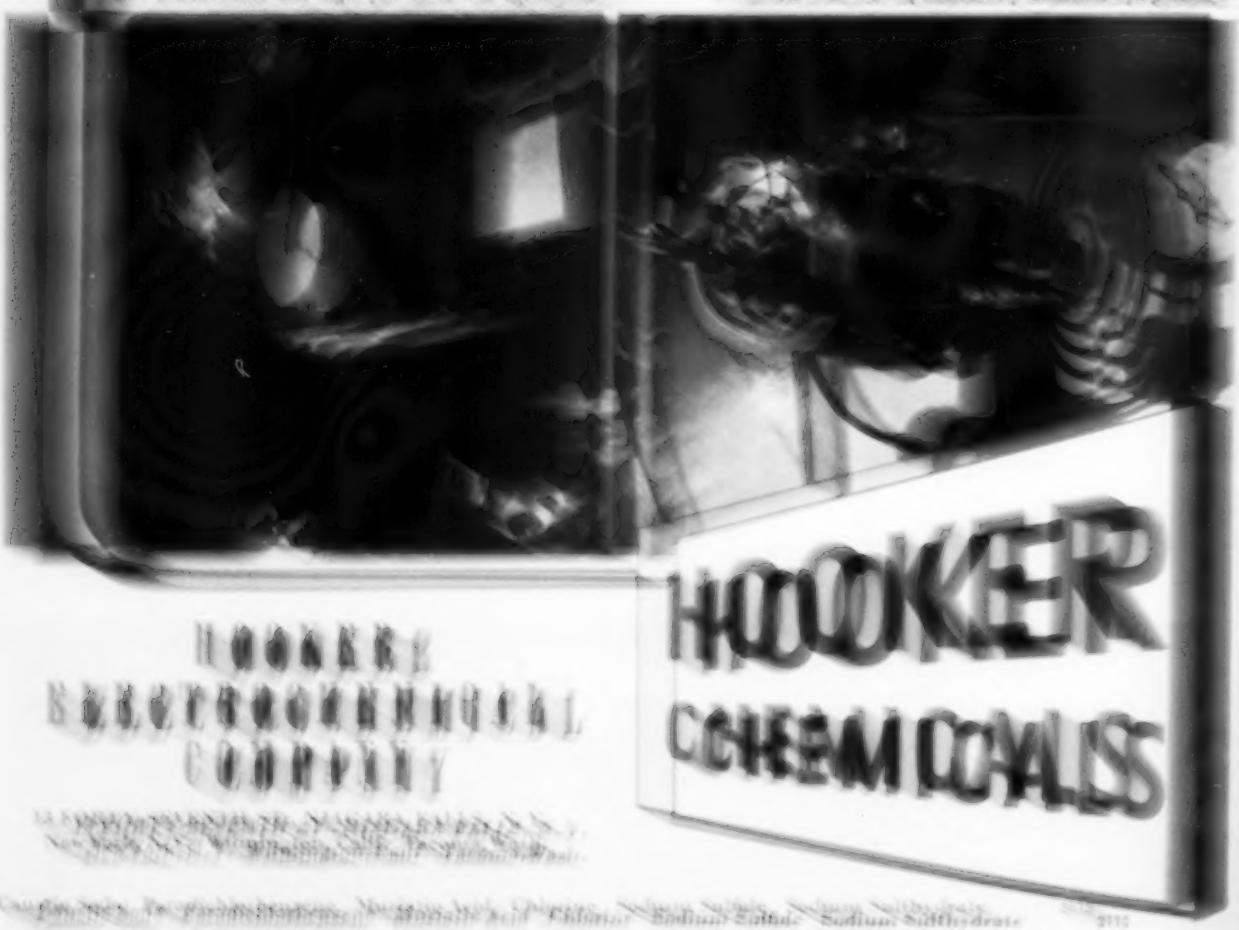

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High-quality material—extremely light color—slight bland odor.

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Suitable for use in small quantities—2/100ths of 1%. Readily soluble in alcohol—ideal for gum hair-wave solutions and many other type preparations. Prevents mold growth.

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Expedition to Etna

Lemery, in 1705, was the first to demonstrate that ammonium chloride (sal ammoniac) exists among the products derived from volcanoes, where he found it admixed with sodium chloride.

At Etna, Vesuvius, Stromboli, Hecla, and the Sandwich Islands, ammonium chloride occurs as a sublimate mixed with other volatile matters in cavities near the volcano, and in crevices in volcanic lava. It also has been reported in the vicinity of ignited coal seams.

Ammonium chloride is found in guano from the Chincha Islands, in natural salt, in the mother liquor of some brine springs, and in carnallite from Stassfurt.

Since 1867, Mallinckrodt has specialized in the production of ammonium salts for use in medicine and industry. **Over eighty different salts and forms are available—including Acetate, Bromide, Carbonate, Chloride, Iodide, Sulfate—** and the Mallinckrodt trade mark is your assurance that these chemicals will meet your most exacting requirements.

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"I just tell them that demand is so heavy we can't keep any for our own use."

KEEPING POSTED

FTC After One-Cent Sales

EVIDENTLY the Federal Trade Commission wants to take all the romance out of drug store merchandising. It has now issued a complaint against United-Rexall charging misrepresentation in connection with the 32-year old "One-Cent Sales." As everyone knows, whether he is connected with the drug industry or not, during these sales Liggett and Rexall stores sell Rexall merchandise at prices of the list price plus one cent for two packages. Naturally, during the balance of the year many of the stores handling Rexall merchandise sell the Rexall products at prices below the list prices to which the one cent is added for these sales. This, the Commission says, is misleading to the public. Justin Dart, president of United-Rexall, says: "It has long been the practice of our company to have a minimum and maximum retail price. Many of our dealers sell their merchandise at the maximum, or list price, all the time. We therefore add one cent to the maximum rather than the minimum price."

We fail to see how anyone but a moron would be deceived by the one-cent sale practice. Everyone realizes that he is effecting a saving by buying at a one-cent sale, but no one is foolish enough to think that he is actually getting the extra package for just one cent. We suppose that the F.T.C. would insist that each store selling Rexall goods keep a record of the prices at which it sold Rexall products during the year and then add one cent to these prices for the sale. If such a practice were employed, all stores would have to sell all these products during the year at the list prices or they would not be able to offer the people savings by holding one-cent sales. So whether the stores continue at minimum prices during the year and then hold no one-cent sales, or if they sell at list during the year and then hold one-cent sales, the public is not able to buy its goods as cheaply as if the F. T. C. left well enough alone. To our mind this is just another instance of the F.T.C. meddling in something that is going to stop a few morons from being misled, but which in the main is going to cost the public money. We thought that the F.T.C. was supposed to protect the public against deceptions which caused them losses, not merchandising stunts that actually effect savings for people.

Insurance Company Selling Vitamins

THE North American Mutual Insurance Company, a hospitalization insurance company whose main office is in Wilmington, Del., has entered the vitamin business and is promoting sales through direct mail appeals to its policyholders. Offering a complete line of six different preparations—vitamin B_1 tablets, vitamin C tablets, multivitamin tablets, vitamin B complex with liver and iron, and brewer's yeast—the company president writes that vitamins are supplied at cost and: "This means that you and your family members can enjoy all of the important benefits of regular vitamin usage without having to pay the exhorbitant prices which normally prevail in the retail stores." We don't know whether the insurance company officials believe that if their policyholders take vitamins they will not have to go to the hospital so often, or whether they just like the added opportunity to make some money. Then maybe some of their investments are in a company making the tablets, or something of that sort.

A drug alkalizer is cheaper than lemons, says Elmer Bobst, president of William R. Warner & Co., in a letter to physicians. Says Mr. Bobst in the letter: "patients cooperate when you prescribe 'Alka-Zane' Alkaline Effervescent Compound—they like this gentle well-tolerated alkalizer! It is pleasant in taste, far more effective than lemonade, and, considering the high cost of lemons, even cheaper."

Disposal of Trade-marked Goods

MANUFACTURERS of trade-marked articles of this industry sold to the Government during the war are still not being favored in the repurchase of these products. Naturally, most manufacturers are particularly anxious to recover these products so that they can be certain that no damaged goods bearing their trade-marks are sold, and so they can be sure that these supplies find their way into the regular channels of trade at the proper prices for all classifications of distribution. To have these goods sold to speculators or to large distributors at prices

below the usual levels creates conditions where damaged goods are offered to consumers adversely affecting the manufacturer's good will, or allows large distributors to gain an unfair price advantage over the smaller purchasers.

In the case of Bristol-Myers Company, whose Secretary George S. McMillan recently testified the House Select Committee to Investigate Disposition of Surplus Property, Ipana, Vitalis, Mum, Ingram Shaving Cream, and Trushay Hand Lotion were sold to the Government in very large quantities at a special discount "far below our standard discounts." Vitalis was sold only to the Government, civilian sales being discontinued for the period of the war so that the Armed Forces could have the product. A price for the surplus Ipana has been set by the War Assets Administration at one cent more a tube than the Government paid for it. The manufacturer wants to buy it back at that price, but is not allowed to do so.

Bristol-Myers and other companies want to buy their products back because some preparations might be affected by age, and some goods might be so packed as to render them liable to damage in storage or transit. In the case of Bristol-Myers, since hostilities ceased, well over $125,000 has been spent buying back the company's products from those who purchased them from the War Assets Administration. "All of these products were destroyed and, therefore, the $125,000 plus the considerable amount of time and effort involved is a dead loss to the company and its stockholders."

To anyone connected with this industry or with its distributive channels there seems to be no question that the proper and equitable thing is to sell the goods back to the manufacturers. We cannot understand why the Government does think so too.

I. G. Process Information

THE Department of Commerce has available for those interested "significant German data covering the processes used by the I. G. Farbenindustrie for manufacturing dyes, textiles and pharmaceuticals contained in 10 microfilms and three reports now offered for sale." Among these are: PB-32536 (enlargement prints, $28.50; microfilm, $3.75; text in German), pharmaceuticals. Manufacturing procedures are included for various products, such as Pyramidon, Novacaine, Salvarsan, intermediates, vaccines, hormones, vitamins, and many others, with schematic drawings and flow sheets; PB-28951 (Pharmaceuticals; Research and Manufacture at I. G. Farbenindustrie, photostat, $19; mucrofilm, $6; 273 pages; including photographs). In addition to much general information, the report contains descriptions and translations of articles on vaccines, Mapacrine, Pamaquin, Dolantin, Sontochin, arsenic organic compounds, vitamins, penicillin, antimalarials, barbiturates, sulfa drugs, and acetophenetidin. These may be obtained from the Office of Technical Services, Department of Commerce, Washington 25, D. C.

New York City Sickness Insurance

NEW YORK CITY has officially adopted a prepaid medical care insurance for the employees of the city government. This is being done through the Health Insurance Plan of Greater New York, a plan to which we referred a while ago. Under the plan the City will match the payments of all employees who subscribe. Total cost to the insured and the City will be $39 annually for single persons, $77 for a family unit of one dependent, and $111 for a family unit of more than one dependent. These figures are estimated costs, including medical care and hospitalization. Deductions from payrolls are made to meet the employee's share. It is required that at least 75 per cent of the employees in a departmental agency or unit sign before the group is accepted. A person leaving his job may continue as an individual subscriber. The contract provides for the following medical services: General medical, specialist, surgical and obstetrical care; laboratory procedures, diagnostic procedures; physical therapy, radio-therapy, and other therapeutic measures; professional service for the administration of blood or plasma; eye refractions; visiting nurse service at the residence of the insured person, as prescribed by a physician of the medical group; ambulance service from the residence of the insured person to hopsital, when ordered by a physician of the medical group. Each person is permitted to choose from medical groups that have contracts with the Hospital Insurance Plan.

Otto of Rose and Smuggling

OTTO OF ROSE to the value of $108,000 was used to smuggle into this country gold coins valued at $20,000, according to U. S. custom agents who brought charges against Lalue Koleff. It seems that Koleff arrived here October 1 on the Swedish liner, Stavangerfjord and declared two battered trunks in his luggage as containing personal effects. In the trunks were found 185 pounds of otto of rose in aluminum containers. Since otto of rose is not subject to duty, the agents were suspicious of the material not being declared so they held the trunks for further examination. A spot-check analysis showed the otto of rose contained no adulterant. Then, later, one of the containers began to leak. A customs agent picked it up and shook it and out fell a wrapper filled with ancient $20 gold pieces. Two hours later the agents had counted and tabulated 1,123 gold coins, including German marks, Austrian kronens, Russian rubles, and American dollars.

Ball-Point Perfume Dispenser

NOW that the public is being besieged to write on the ball, and a heck of a lot of people are buying more and more ball pens every day, a new perfume carrier and dispenser built on the same principle has been developed. The perfumes dispensed by this ball-bearing point container are of three different types, and are as thick as honey or syrup, containing absolutely no alcohol. The inventor of the perfume dispenser is none other than Ladislao Jose Biro, a resident of Buenos Aires, where he owns a fountain pen factory producing three thousand pens daily. Mr. Biro, who holds some of the patents on the ball pen, was born in Hungary. The New York firm marketing the new perfumes and dispenser is Biro, Meyne, and Biro, the second Biro being the inventor's brother, and the man who developed the ink used in the fountain pen. The other member of the firm is a Hungarian who has worked with the brothers since the beginning of the war.

OPA Drug Committee

AN INDUSTRY advisory committee for package and private formula drug manufacturers has been named by OPA to consult with this bureau on price ceiling problems and on the timing of decontrol for the industry. Members of the committee are: Charles Beardsley, of Miles Laboratories; Stanley Clark, of Sterling Drug; John J. Toohy, of E. R. Squibb & Sons; G. P. Snow, of Cutter Laboratories; Walter F. Wargell, of Burrough Brothers Manufacturing Co.; Homer C. Fritsch, of Parke, Davis & Co.; N. F. Storm, of Ciba Pharmaceutical Products Company; K. F. Valentine, of Pitman-Moore Co.; J. F. Stiles Jr., of Abbott Laboratories; Dr. Paul S. Pittenger, of Sharp & Dohme; A. J. Meier, of the Arner Company; and Lupton Patton, of Chattanooga Medicine Company.

Get After That Tax!

NOW that the Republicans are to control the House and Senate when the new session of Congress meets, it is none too early to start organizing to effect elimination of the 20 per cent retail tax on cosmetics. It is announced that the tax bill is one of the things that the new Congress will immediately take up, so plans on the part of this industry designed to implement the removal of this tax should be worked on at once. After all, passage of a new tax bill takes a considerable amount of time, and, with a Democratic President and a Republican Congress, the time that elapses before the bill is finally enacted might be greater than it would be if the President and Congress were both of the same political faith. The sooner this tax is removed the better, but even with the greatest haste it does not appear that it can be removed before the end of the present fiscal year, which is June 30, 1947. It must not go past this time, so let us start talking about it and working on it immediately.

A Patent Service

IN THIS issue we inaugurate a new department or type of service for our readers. This is a section devoted to patents. This department will appear monthly and will be specifically written from the point of view of manufacturers of the products of this industry. We expect as this department develops that readers will learn a great deal from it. We believe that we have discovered a way to handle a patent section so as to make it much more readable and interesting than the average such section. Turn to page 672 of this issue for the first appearance of this section.

A Drug Congressman

WELL the drug trade is sure to have a friend at court in the coming Congress. Robert Tripp Ross, for many years a Liggett store manager in Jackson Heights, Borough of Queens, New York City, was elected to Congress from the Fifth Congressional District of New York in the recent election. Quite naturally, being elected this year, he is a Republican. Being an intelligent store manager, he was prominent in local affairs, a member of the Kiwanis Club, and other local organizations. So he was offered the nomination and his popularity as well as the Republican swing made him a Congressman.

Cosmetic Packaging

A SPECIAL packaging cosmetics and personal accessories seminar features the eighth annual meeting of the Packaging institute in Chicago, November 25 and 26. The latest techniques in packaging procedure, materials and machinery make up the seminar, according to W. Van Alan Clark, vice-president of Allied Products, Inc. The packaging institute now has a membership of 355 firms made up of the principal manufacturers of all types of packaging materials and machines, as well as leading package users throughout ten principal industries.

The Soda Ash Shortage

WE ARE TOLD that the reasons for the shortage of soda ash—which shortage is affecting any number of materials needed for this industry—are three in number. The first is that labor is not producing as effectively as before the war and the production per man is therefore low; second, the demand is the greatest which has ever been experienced in the history of the alkali industry; and third, the production machinery is pretty well "shot" and stoppages to repair existing machinery are very frequent and something quite long in duration. It is explained that loss of production from causes such as these cannot be made up, the only thing that will make soda ash freely available is greater production facilities—which are not likely to be erected because present demand is far above what is considered normal—or a greatly lessened demand which will eventually occur, it is believed, but no one knows when.

Vitamins and the Alphabet

THE letters of the alphabet are mostly used up for labels of vitamin preparations, according to Assistant Patent Commissioner Leslie Frazer, who said recently that only the letters "O", "Q" and "V" remain to be used. Mr. Frazer made this point in reversing the decision of an examiner of trade-marks refusing to register "DMC" as a trade-mark for vitamin preparations of the Dixie Medicine Company. The mark will stand, he said, if "D" and "C" are disclaimed.

Ball-Bearings for Us

NOW that pens are operating with ball-bearings, and a new perfume dispenser operates on the same principle, we learn that a new ball-bearing hair brush is being introduced. The nylon bristles are set in individual ball-bearing sockets so that they revolve when the brush is used. Well, the world is round, so why not? We think we'll fall for anyone who tries to sell us stock in a ball-bearing factory.

A Longer APMA Meeting

THE American Pharmaceutical Manufacturers' Association is extending the time of its mid-year meeting from two days to three days "in order to provide more ample time for the discussion of fundamental matters and problems of current concern to the industry." The meeting is scheduled for December 9, 10, and 11 at the Waldorf-Astoria Hotel in New York. The APMA scientific award ceremony is always a high point of this meeting. Other subjects to be covered are: scientific, management, production marketing, and public affairs.

Glass Bottle Shortage

GLASS BOTTLE manufacturers see no relief in the shortage of supply of bottles, and, as a matter of fact, they forsee the great likelihood of supplies of bottles declining over the period that lies immediately ahead. This is principally due to the shortage of soda ash which is an essential ingredient in the manufacture of glass. The shortage of soda ash is very real due partly to its use in the production of aluminum for which increased allocations are reported to have been made, and due to the increased demand for it in all industries which use it and for export. Glass manufacturers can increase the production of bottles without increased supplies of soda ash if they can obtain increased quantities of cullet, this being the name for broken glass, a certain amount of which is required to start every batch of glass which is melted. However, for this reason cullet is in very heavy demand and the price of it has risen sharply and supplies are not easily obtainable. Whenever glass manufacturers can get their hands on obsolete bottles they have them broken up for use as cullet. Under these conditions the scrapping of CPA order L-103 is only a headache to the bottle makers. Suspension of this order gives the bottle manufacturers free play in the kind of bottles which they manufacture and allows them to make private mold bottles if they so desire. However, manufacturers have no desire to make private glass bottles now and particularly so if the private mold bottles use more glass than the ordinary run of bottles. With supplies of glass bottles estimated at 25 per cent below requirements, manufacturers want to make only standard types of bottles which can be used by many manufacturers. In this way less glass per bottle is used and consequently more bottles can be produced and more customers can be supplied with at least a goodly part of their needs. Also the number of bottles produced to satisfy customers will be greater if types are produced which use the minimum of glass per bottle.

Synthesis of Penicillin

THE LONG-AWAITED synthesis of penicillin has at last been announced. The announcement comes from Cornell University Medical College, the work being done by Dr. Vicent du Vigneaud and four associates, Dr. Frederick H. Carpenter, Dr. Robert W. Holley, Dr. Arthur H. Livermore, and Dr. Julian R. Rachele, at the New York Hospital-Cornell Medical Center, New York. It is said that the synthesis makes possible manufacture of new forms of penicillin not found in nature, and that there is a remote possibility that one or more of these new forms can conquer such diseases as malaria and tuberculosis. Considerable work being done in this direction.

The synthesis was accomplished by a carefully controlled reaction between two chemical compounds previously prepared at Cornell. These are *d*-penicillamine hydrochloride and 2-benzyl-4-methoxylmethylene-5 (4)-oxazolone. These chemicals previously had been synthesized and studied because it was known that the structure of penicillin was allied to their structure. After combining these chemicals by a process involving first condensation and then heating in a solvent, a drug was produced which showed activity against bacteria that was markedly similar to that of penicillin, although in small amounts. Other workers had made similar discoveries during the war but there still remained unsolved the problem of purifying the compound and proving its relationship to penicillin.

This was accomplished by counter-current distribution in which impurities are filtered out by taking advantage of their action in mixed solutions. The result was a crystalline mixture which was purified and tested and which then showed all the characteristics of penicillin. Radioactive tracers were used to check the process, and when radioactive compounds were used in initiation of the process, they followed through and were found later in crystals known to contain pure penicillin. The promise of an attack on diseases not now affected by penicillin or other drugs lies in the possibility of the effectiveness of derivatives of the synthetic product.

Surprisingly enough, the synthesized product remains a mystery in that its structure is still not known with certainty. Exactly how the starting compounds interact is also unknown. Work is being done on breaking down the synthetic product, piece by piece, in an effort to determine how it is assembled.

The question naturally arises whether or not the synthetic method of producing penicillin will replace the fermentation process of producing the mold and then extracting the drug. This is something that will not be known until costs of large-scale production by synthesis become available. The hope of the synthetic product appears to lie in the possibility of extending the use of penicillin-type drugs by investigation of derivatives. However, once the structure of penicillin, either from the mold or by synthesis, becomes known, there is no reason why derivatives cannot be made from penicillin made in either way. For this reason the eventual manufacture of these products either from the mold or by synthesis will depend on the cost angle solely. And since the method of production from the mold have been highly developed, plants have been mainly amortized, and prices have been sharply cut over the years, the cost of synthesis will have to be sharply lower than production from the mold to get a foothold.

German Medicinal Information

THE TECHNICAL Industrial Intelligence Division of the Department of Commerce has working in Germany a special investigating committee which is obtaining new data on German developed pharmaceuticals. Dr. Carl Addinall, director of technical information, Merck & Co., writing from Germany, where he is a member of the special committee, indicates that considerable technical data has been obtained. Since early summer, the committee has been engaged in a detailed study of the scientific files of the German pharmaceutical industry, according to Dr. Addinall, who also says that other investigators in the field are needed to continue the work. Recruiting of such investigators is currently under way through the TIID. Dr. Charles E. Reed, chief of the Pharmaceutical and Medical Unit of TIID, is now working on plans for a conference of American manufacturers at which Dr. Addinall and other committee members will outline their findings prior to a published report.

It Shouldn't Happen to a Dog

IN THE future when Spot and Fido meet at the hydrant they are going to be somewhat disconcerted at the strange aroma that will meet their nostrils. For now the animal kingdom has joined the cosmetics world. Pet-Metics Products Co., New York, is starting national distribution for its line of cosmetics for dogs, called Dog-Metics.

It has long been the practice of dog owners at exhibitions to chalk the coats of animals or to use grease pencils to touch up the eyes of show dogs. But then dogs have been putting up with the whims of their masters for centuries now, and this latest step will give added meaning to that old adage, that the noble animal is man's best friend.

That old saying about putting on the dog really has a meaning now. When Rover gets on the scent, it won't mean that the bloodhounds have hit the trail, but they have dabbed a touch of Kennel No. 5 behind the ear. The old doghouse won't seem the same after this.

Industrial Odors

THE WALL STREET Journal, late last month, took notice of the interest in industrial odorizing, a process that has been known to manufacturers in this industry for some fifteen or more years. Said the Journal on October 29:

"Synthetic soles for shoes gain a natural leather odor. Lord & Taylor's department store entrance on New York's Fifth Avenue gets frequent dousings of beautiful smells from an atomizer. Pleasant odors are going into paints, polishes, waxes, rubber raincoats and insecticides. The smell of newmown hay freshens air-conditioning systems. Even the circus puts a scented deodorant on its elephants."

In the article are mentioned "old-line supplying firms" such as Givaudan-Delawanna, Fritzsche Brothers, Magnus, Mabee & Reynard, and Dodge & Olcott. However, the article states: "But nowadays production comes also from companies like Dow Chemical Co., General Drug Co., du Pont, and U. S. Rubber (through its Naugatuck Chemical Division). Often their interest has been aroused by odor problems in their own plants and product, but they work on scent-puzzles of other manufacturers as well."

New Labeling Regulation

THE FOOD and Drug Administration has issued a new regulation under Section 502 (f) (1) of the Food, Drug, and Cosmetic Act, concerning directions for use of drugs and devices. The regulation reads:

"Sec. 2.106 Drugs and Devices; directions for use. (a) Directions for use may be inadequate by reason (among other things) of ommission, in whole or part, or incorrect specification of:

"(1) Directions for use in all conditions for which such drug or device is prescribed, recommended, or suggested in its labeling, or in its advertising disseminated or sponsored by or on behalf of its manufacturer, packer, or distributor, or in such other conditions, if any there be, for which such drug or device is commonly and effectively used."

This means that the Food and Drug Administration can use advertising to determine whether or not directions for use are considered adequate. Officials of the FDA contend that some manufacturers have been including in their advertising statements which have not been contained in their labeling regarding the value of the product. Therefore, in the opinion of FDA officials, these manufacturers have not been including adequate directions in their labeling covering all of the conditions mentioned in the labeling and advertising. Certainly there should be no objection to this regulation since it merely attempts to carry out the intent and spirit of the law.

Read It Backwards

MANY LONG years ago we recall people naming their estates or their boats or other prize possessions. On many occasions the name was brightly produced by spelling the name of the owner backwards. However, we had never seen this method applied to the drug business until, shortly after the introduction of psyllium seed as a laxative, we began noticing the advertisement in the subway for Serutan (Read it Backwards). Now, long after the introduction of that product we run in another product called Nemow. The manufacturer does not tell us to read it backwards but we did, and then we noticed that it is relief for menstrual discomfort.

Republicans and the Stock Market

MUCH SURPRISE was expressed at the fact that the stock market took a slight nose-dive the day after election instead of advancing sharply on the news of the Republican victory. Maybe not to the professional traders, but to the ordinary "guy" who puts his money in the stock market from time to time, this came as quite a shock. Announcements were made that the Republican victory had been "discounted" weeks before the election when stocks advanced. However, we prefer to think that the Republican victory means a return to harder money and a definite end to the possibility of further inflation. And if inflation is at an end, then common stocks will no longer be a refuge for the funds of the wise investors.

Drug Specialization

AS AN indication of the extent to which specilization is taking place not only in medicine, but also in the drug and pharmaceutical manufacturing field, we point to the new million-dollar Research Institute of the Ortho Pharmaceutical Corporation now nearing completion. Here is a firm formed to separate from the parent concern—Johnson & Johnson—a business being done in a vaginal or contraceptive jelly—Ortho-Gynol. Now this company erects and mans this large research institute to delve into the many unsolved problems of obstetrics and gynecology. The institute, which stands on a ninety acres plot, contain 37,500 square feet of space, and houses 53 individually designed laboratories. It will be directed by Dr. C. E. Folsome, head of Ortho's research division and assistant professor of Clinical Obstetrics and Gynecology, New York University College of Medicine. Work is to be conducted under the following major divisions: immunology, microbiology, organic medicinal chemistry, pharmacology, biochemistry, nutritional physiology, clinical specialty medicine, and pharmaceutical chemistry. The institute will contain a scientific library and graphic arts division and has an animal quarter with accommodations for about 14,000 animals.

FOREIGN OPPORTUNITY

BLACK STAR

That the export market is a two-way street that must be counterbalanced by imports is a fact that has been quite generally realized by exporters in this country during recent years. Today even the man in the street talks about goods being exported from this country while the domestic needs for many of the things being exported remain unsatisfied. These people are quite apt to ask who is paying for the goods since foreign countries are known to be "broke." However, these people quite naturally assume that the manufacturers exporting these things are getting paid, and they also assume that our Government is actually paying for these things through some system of loaning money to the foreign countries or through some extension of a form of Lend-Lease. Quite often these people terminate the discussion with a remark that ends with the expression "Uncle Sap."

But although manufacturers who are now doing a sharply increased business in export realize that export must be a two-way street if it is to continue and if they are, in fact, going to get paid, not many of these manufacturers are doing a great deal of thinking as to the way in which this two-way street can be developed. Officials of the Government are naturally trying to stimulate this kind of thought, but naturally exporting manufacturers are not apt to think of balancing the situation by importation of products of their own industry. However, it is not essential in many instances that the importations be of the products of the industry that is doing the exporting. And with regard to this industry, an extremely large number of the countries to which our drugs, pharmaceuticals and cosmetics are exported, have nothing of the same type of products to return to us. In many of these countries, industrialization is at a minimum, as is research, development, and production of outstanding products of this industry.

Therefore, the possibility of imports turns largely to raw materials which may be used in the production of the products of this industry or some other industry. However, if a manufacturer of the products of this industry should find that he can import at advantageous prices some raw materials used in his own products, then quite naturally he is apt to upset to some extent the business of established importers of these products in this country, and such a condition is far from desirable. However, if he imports raw materials for this or any other industry and turns them over without profit to established handlers of these products, then he is helping to balance the situation and is assuring himself of a continuance of his attractive export business over the years that lie ahead.

Prior to the war and for many years past, products of this industry were imported in quite substantial volume from Europe. France naturally was, and will doubtless continue to be a large source for finished and unfinished perfumes, and of raw materials for perfume concentrates used in this industry. Germany and Switzerland were sources of new developments in therapeutic agents. And, while importers of many of these products were at one time roundly hated and accused of taking food from the mouths of American labor, benefits not only to the health and well-being of our country, but also to the manufacturers of similar products accrued. We must recall that many of these imported new products, as Prontisil, for example, caused American manufacturers to investigate products of this type and to improve upon the original German discoveries to the point at which the American manufacturers very largely took over the market for this type of product. Therefore, the American manufacturers benefited from the importation of the original German products, and the American medical profession and population also benefited.

Such was the case also when Salvarsan, the original arsphenamine, Luminal, the original phenobarbital, and similar products were introduced in this country from abroad. Imports of new products do not always displace products used in this country, since, as illustrated above, they add to the products used. And when these products can be manufactured here, and, in many instances improved upon through research conducted in this country, they add to the total size and sales of our industry.

Exports of the products of this industry are at an all time high and are many times the prewar volume. Proprietary manufacturers have long been interested in export markets, but today the pharmaceutical manufacturers are the ones who are doing the real volume in foreign countries. Cosmetic manufacturers do not display as much interest in foreign trade as do the drug and pharmaceutical manufacturers. This seems to be for the reason that they are very busy at home filling domestic demands, and the shortage of raw materials and containers largely dampens any enthusiasm that they might otherwise feel for development of foreign markets.

Some of the pharmaceutical manufacturers have established separate export corporations completely separated in operation from their domestic companies. This gives them definite advantages in operation. The export companies are run by entirely different people than run the domestic companies and the thinking of the operators of these export companies is concerned only with foreign trade and how it can be best developed. Under these circumstances there is no conflict in the minds of the operators of the export company as to whether or not a certain policy will adversely affect the domestic business of the company. Foreign credits can be set-up by the export company, goods can be taken in exchange and imported into this country or shipped from one foreign country to another, and all manner of things necessary to the proper development of foreign trade can be indulged in without interference from executives who are interested mainly in the domestic market. Abbott and Squibb are two of a number

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PHOTOS FROM BETTMANN ARCHIVE

What Is In the Future for MEN'S TOILETRIES?

By FRAZER V. SINCLAIR

FATHER'S DAY, 1946, marked a turn of the tide in the most dynamic development in the cosmetic industry in recent years. Whether this first set-back for men's toiletries, interrupting an accelerating growth over a period of six years, is temporary or whether it is the first indication of a saturated market soon to be reached, is a question earnestly debated whenever men's toiletries are discussed.

There was really nothing surprising in the Father's Day slump for this industry, except that it happened this year. Every intelligent observer in the industry knew that men's toiletries had prospered far beyond the bounds of normal growth because of a shortage of other gifts for men; that this fact had in many homes temporarily worn out the welcome of after-shave, cologne, shaving soap and men's toiletries gift sets. They knew that, although the preference of men in the service for these products made clear that a permanent stable market for these products would continue, here, too, the duplication of gifts was an uneasy and unknown factor in an inflated market. And again, it has been painfully obvious to everyone—retailer, salesman and

manufacturer—that the men's toiletries bandwagon had taken on more passengers than it could possibly carry. Even before Father's Day, some of the 200 or more lines that have joined the parade in the last six years were lagging behind, or quietly falling out.

To understand this part of the industry properly, it should be remembered that it found its origin largely as a gift cosmetic and remains today primarily a gift. The early pioneers of the field, the makers of Seaforth, Sportsman, Courtley and His did not bring out new cosmetic products. For more than thirty years these same products, or at least the ones that accounted for 90 per cent of the volume, could have been found in any drug store under such well-known names as Mennen, Colgate, Williams, Jergens, etc.

What these pioneers did do was to bring imagination in packaging to men's products, to create a cosmetic product for men which, for the first time, made a vivid appeal to women as a suitable man's gift, without sacrificing an appeal to men. And by pricing, creating attractive gift sets, good marketing, they again for the first time offered department stores and better retailers a men's cosmetic they could get behind in a partnership to build a new addition to the cosmetic industry.

Several surveys show that during the first two years, largely the years before the war, 90 per cent or more of these class brands were purchased by women. BEAUTY FASHION, in replies from over 600 salesgirls found 92 per cent to be the estimate of the girl behind the counter for women's purchases. At this time, nearly 80 per cent of sales were made in the two months before Christmas.

This over-heavy balance of a gift market, a factor of instability as well as a great asset to the entire cosmetic industry, has been the primary problem of the makers of men's toiletries and the chief limiting factor in market expansion. Definite progress has been made, because surveys now show that nearly 25 per cent of these toiletries are purchased by men—a move toward a more stable, primary market of about 51 per cent a year. Christmas purchases have dropped to about 70 per cent of yearly volume, but Father's Day and Christmas together still account for 85 per cent of the total year's business.

It is difficult to avoid the conclusion that all cosmetics, and men's toiletries in particular have reached a peak volume in gifts that can be exceeded only through the slow growth in wealth and population of the country. It may be, that as an infant industry, expanded advertising will find new gift buyers not yet persuaded that their men folks should be introduced to good grooming. But the factors which upset the hopes of last Father's Day will be increasingly evident next year and for the future. Men's toiletries are in for a great deal of new, smart competition for the men's gift market.

The strong flame of optimism which burns brightly in the offices of the leading manufacturers of men's toiletries shows no flicker from the draught of coming events. They believe implicity that theirs is in fact an infant industry, a lusty infant that has a long way to go and a very bright future along the way. But they are not by any means complacent about the future. Men's toiletries are headed for a man-made evolution, a series of planned steps that will bring drastic changes to the industry.

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Two views of the ascorbic acid plant at Chas. Pfizer & Co., Brooklyn, N. Y.

UP-TO-DATE ON VITAMIN C

By M. A. LESSER

Most people, when they think of it at all, consider vitamin C only in the light of a nutritional essential. During the last few years, however, ascorbic acid has taken on new importance. Without too much fanfare, this now-familiar substance has found a surprising number of valuable applications, not only in medicine, but in industry as well.

Speaking as a physician, Bennett[1] has remarked that this vitamin is "shaping up to be one of the most important chemicals with which we have yet come in contact." In a similar vein, Fox[2] has noted that there are grounds for believing that ascorbic acid can be utilized by the body in ways which are quite apart from its specific activity as a vitamin. While some of the newer applications for vitamin C have found general recognition and acceptance, not all medical anthorities see eye to eye on other phases of this vitamin's utility.

The nutritional importance of vitamin C is quite well established, but there are some points that still require clarification. Briefly, ascorbic acid prevents and cures scurvy and is essential for the formation of the intercellular substances of the bones, teeth, cartilage, and capillaries. It is believed to be an important factor in cellular oxidation and reduction processes.

Considering the many naturally rich sources of ascorbic acid, no one can argue with the view that the diet ought to provide sufficient vitamin C for all the needs of healthy humans. Unfortunately, many who hold persistently to this opinion often overlook the alarming amount of vitamin C destruction that may occur before actual consumption of supposedly ascorbic acid-rich foods, despite the fact that this point has often been stressed by competent observers.[3,4,5] Apart from the reduction in intake that may arise from growing inferior crops or from harvesting them at an unsuitable stage, Fox[2] emphasizes particularly the great losses that continually arise from delays between picking and cooking, from improper cooking, and from the delay between the completion of cooking and actual serving and eating of foods.

In view of these and other factors, it is often necessary to supplement the diet with ascorbic acid obtained from various natural sources or by synthesis. During the war, the synthesis of ascorbic acid was stepped up considerably, but even this increased production had to be augmented by our allies. The Russians, for example, extracted vitamin C from pine needles, while the British found rose hips a rich source of this nutritional essential. Of interest in this connection is the observation by Sevringhaus[3] that, with improvements in manufacturing details, it is now no more expensive to get the pure crystalline vitamin in tablet form than to secure it from foods.

Newer ascorbates are finding employment where it is necessary to supplement the diet. Sodium ascorbate, for example, is to be included in the forthcoming U. S. P. XIII. This is usually provided as a solution for parenteral use where injection of the acid might prove irritating. However, at least one brand of sodium ascorbate ("Sodascorbate") in tablet form is available for oral administration. Other salts have also been suggested as offering possibilities in therapeutics. Thus, calcium ascorbate may be valuable in the treatment of fractures,[6] while bismuth cevitamate (ascorbate) offers possibilities in the therapy of Wasserman—fast syphilis cases.[7]

Individuals vary considerably in their vitamin C requirements. To provide a margin of safety for this individual difference in utilization and also for the variation in the content of foods, it is felt[4] that a standard greater than the minimum requirement of vitamin C must be set. Various standards have been proposed, but often there is a marked difference in the amount advocated. Thus regulations for the enforcement of the Federal Food, Drug and Cosmetic Act designate 30 mg. of vitamin C as the minimum daily requirement of adults. The standards of the Food and Nutrition Board of the National Research Council are much higher; recommending a dietary allowance of 75 mg. for men, 70 mg. for women and proportionately smaller amounts for children.

Conditions which increase metabolic processes increase the body's requirements for vitamin C. This occurs in such conditions as hyperthyroidism, tuberculosis, rheumatic fever, pregnancy, pneumonia, osteomyeletis, and other febrile states. Aside from the fact that there is a greater demand for vitamin C in the course of certain infections, there is also considerable evidence that deficiencies of this vitamin may be one of the causes of lowered natural resistance.[8,9,10] Quite indicative are studies[11] which showed that children given a daily preventive dose of 50 mg. of vitamin C were absent from school because of illness only half as often as children not receiving the vitamin. Results of feeding tests in a large boys' school in England suggest that an adequate intake of vitamin C has a real effect in helping to prevent sore throat, otitis media, pharyngitis, cervical adenitis, and possibly pneumonia and acute rheumatism.[12]

The use of vitamin C has been advocated in many diseases where clear-cut indications of its value are not always evident. Its use in the treatment of colds and other respiratory infections, for example, appears to be based on well-established custom. However, there is evidence, based on controlled studies,[13] that the use of ascorbic acid in large doses does have a beneficial effect in checking the common cold. European investigations[14] on vitamin C in pneumonia in children indicate that ascorbic acid does not affect the virulence of the pneumococcus; but apparently protects the organism from septicemia, both by bacteriostatic action and by raising immunity.

There is evidence that ascorbic acid has a virucidal action against vaccina virus,[15] poliomyelitis[16] and influenza A virus,[17] Klein[18] has explained the mechanism of this virucidal action but the question still remains as to the therapeutic efficacy of this vitamin in virus-caused diseases. Working with monkeys, Jungeblutt[19] found that the incidence of paralysis could be reduced by the administration of rather large doses of vitamin C,

but Sabin[20] could not obtain protection from such therapy in poliomyelitis. More recently, Stone[21] observed that the administration of ascorbic acid was a valuable adjunct to artificial fever treatments for poliomyelitis.

While there is a general unanimity of opinion that an adequate intake of vitamin C is necessary for normal tooth growth and tooth structure, and the maintenance of healthy gums, there is still a dearth of exact knowledge of the relationship of ascorbic acid to dental and gingival disease.[8] Giroud[22] cites experimental studies which showed that pronounced alterations of the enamel, the dentin and the dental pulp are due to vitamin deficiency. In line with this statement is a report[23] on the use of ascorbic acid for preventing so-called secondary dental caries. In this work, children in three institutions were given 100 mg. of the vitamin daily for one year. No cases of secondary caries developed as was shown by inspection and X-ray studies.

Also of interest in this connection is the combined use of vitamins C and D in conjunction with calcium fluoride for the inhibition of dental caries. On calcium fluoride alone, the increase in caries was reduced to 27 per cent, as compared to an expected increase of 40 to 65 per cent. Adding the vitamins to the fluoride further reduced the incidence of caries to 24 per cent in one series and to 10 per cent in another. It is suggested that this decrease is explainable on the basis of a synergistic action between vitamins C and D and the fluoride.[24]

Although there appears to be a correlation between the duration of vitamin C deficiency and the severity of an oral disease,[25] there is considerable conflict of opinion regarding the value of ascorbic acid in the treatment of gingivitis. Quite a number of reports[22,26,27,28] are available which indicate that administering adequate amounts of the vitamin results in the clearing of gingival lesions. However, others[5, 29, 30] feel that such oral conditions as sore and bleeding gums are due to local conditions, like calculus or infection, rather than to vitamin C deficiency. This seems to be borne out in a rather extensive study[31] in which the use of ascorbic acid tablets proved no more effective than dummy tablets for improving the condition of the gums.

The mass of evidence that has accumulated over recent years leaves little doubt as to the importance of vitamin C in tissue repair and wound healing.[8, 32-35] Indeed, Bowers[36] considered it the most important vitamin in the healing process. Although there are those[5, 37] who believe that there is no relationship between plasma ascorbic acid levels and wound healing in the nonscorbutic subject, the desirability of enforcing a high vitamin C intake before all surgical procedures and during healing of any wound has become generally recognized.[38] Gooel,[9] for example, suggests that 500 to 2,000 mg. of vitamin C may be used, intravenously if necessary, and that if the history is suggestive of vitamin C deficiency, 1 to 4 Gm. per day should be given preoperatively.

Work by Ryan and his associates[39] with sulfonamide drugs and ascorbic acid in experimental gas gangrene-infected wounds indicates a significant beneficial action from the use of the vitamin. Of very pertinent interest is Ruskin's[40] observation that vitamin C locally applied to wound tissue presents an additional healing factor. The possibility of using vitamin C in chemical combination with the sulfonamide drugs suggested interesting potentialities. He noted that the chemical properties of ascorbic acid are such as to reduce the alkalinity of the sulfa drugs. In addition, the vitamin lends a hygroscopic factor which tends to prevent caking of the antibacterial agents, thus prolonging uniform absorbtion. Studies of a number of cases indicated that sulfanilamide ascorbate and sulfathiazole ascorbate both stimulate healing with epithelization.

Having noteworthy implications in surgery is experimental evidence that vitamin C may have an important bearing on the induction and recovery from anesthesia. In the work reported by Beyer, Stutzman and Hafford,[41] vitamin C deficiency caused animals to be more quickly inducted into anesthesia and more profoundly depressed by the anesthetic. Such animals recovered slowly, if at all, from a duration of anesthesia which had little apparent after-effect on animals given additional amounts of vitamin C.

The war has focused attention on traumatic shock and much work has been done in this field. Experimental observations[42] indicate that vitamin C plays a role in traumatic shock; animals with a low ascorbic acid intake being more susceptable to such shock than those on a normal diet. On this basis, and in view of lowered vitamin C levels after major surgery, it is suggested that preoperative administration of vitamin C might be of value in preventing shock. Quite significant is Bennett's[1] remark that vitamin C "is to be thought of as an excellent adjuvant in the treatment of shock no matter of what type, whether the shock be mental or physical in origin."

It has become evident that some sort of relationship exists between vitamin C deficiency and certain gastrointestinal disorders, particularly peptic ulcer.[5, 9, 43] On the basis of laboratory studies[44] and clinical experience[45] it seems clear that ascorbic acid has an important role in the reduction of complications and the prevention of hemorrhage in peptic ulcer. Hence, the use of vitamin C is now generally recommended to speed healing in this condition, especially in view of the dietary restrictions in this disorder.[1] European studies[46] have indicated a possible role for this vitamin both as a preventive and as a therapeutic agent in epidemic dysentery. More positive is the greatly reduced mortality reported by Drummond[47] from the use of massive doses of vitamin C in 106 cases of enteric fever.

There is evidence, not all of it quite conclusive, that ascorbic acid may play a role in the etiology or treatment of various other disorders. Anemia, for example, is often observed in persons deficient in vitamin C. It is believed[48] that anemia associated with vitamin C depletion is the result of a specific effect on red blood cell formation. Foreign studies[49] indicate that C hy-

(*Continued on page 714*)

HENRY P. BRISTOL

Facts Are His Guide Posts

IN RECENT months the drug industry has shown considerable interest in the growth of the Bristol Laboratories. Many wondered why Bristol-Myers would want to come back to a field they had elected to leave so long ago. Therein lies a story.

Back in 1887, the Clinton Pharmaceutical Company was formed by William M. Bristol, Sr., John R. Myers, and two associates. Medicinal products were manufactured in a plant that consisted of rented laboratory space on the second floor of a small building overlooking the village square of the quiet little Mohawk Valley town of Clinton, New York.

Although the company was small, the basic policy from the beginning was to produce goods of excellent quality at a fair price and a reasonable profit. Success did not come quickly, because the company's customers—physicians and drug stores—were widely scattered and much of the traveling had to be done by horse and carriage. Progress was made, nevertheless, and as a result of William Bristol's determination always to maintain quality and his able persistence in the face of sometimes discouraging odds, a move to larger quarters in Syracuse was necessary three years after the company was founded. A few years later, in 1898, another move to still larger quarters was made when the company established itself in Brooklyn, N. Y. The products manufactured by the company then were considerably different from those of Bristol-Myers today. More than 3,000 medicinal items were produced, and sold chiefly to dispensing physicians. There was little or no direct contact with the public, and consumer advertising had no place then in the company's policies.

After the death of Mr. Myers in 1900, a general reorganization of the company was effected and the original Clinton Pharmaceutical Company became Bristol-Myers.

Growth has been steady and sound in the years that have followed. New plants have been acquired or created with the result that the Company now has plants in Hillside and Newark, New Jersey, Tuckahoe and Syracuse, New York, as well as in Canada, Australia, New Zealand, South Africa, South America, Cuba, Mexico, and England. Three branch offices are located in Chicago, Dallas and San Francisco. A sound advertising policy using publications, the radio and other media has made the company's products known all over the world.

The newest subsidiary of Bristol-Myers is Cheplin Laboratories which have been making a line of biologicals since 1923. Until 1943 when war production requirements forced a discontinuance, acidophilus milk cultures were produced at Cheplin Laboratories. Dr. Harry Cheplin was one of the early pioneers in acidophilus milk cultures.

In 1943 Bristol-Myers procured for Cheplin Laboratories a contract to build a government-owned plant in East Syracuse. This laboratory was to be devoted to the exclusive manufacture of penicillin.

Just recently the Cheplin Laboratories penicillin plant was purchased from the government by Bristol-Myers. The name has been changed to Bristol Laboratories and an expansion program to make this new Company one of the important forces in the ethical field is now under way.

Important in the management of Bristol-Myers Company are the three sons of the founder. Henry P. Bristol is President, while both Lee H. Bristol and William M. Bristol, Jr., are executive Vice-Presidents and serve on the Executive Committee.

(Continued on page 721)

OIL OF SEA BUCHU

By L. WILSON GREENE

MANY species of the large family *Rutaceae* grow wild in South Africa, particularly those plants called "Buchu." The natives employ an infusion of the dried leaves as a medicine and attribute great curative powers to it, perhaps because of the highly pungent essential oil which is present in the leaves.

A paper read before the meeting of the Cape Chemical Society in 1944 by J. L. B. Smith and D. E. A. Rivett of the Rhodes University College of Grahamstown, has just been published.[1]

In it the authors describe their research on the oil from one of the plants of this species, *Agathosma apiculata* Meyer. One remarkable fact they discovered was that the oil contains 30 per cent of an organic sulfide, butyl-1-pentenyl disulfide, $C_9H_{18}S_2$, a compound reported in the chemical literature for the first time. It is also of interest to note that this plant is unique among Rutaceous plants in that its oil contains sulfur.

The local name for *A. apiculata* is "Sea-Buchu." The natives of the southeastern Cape along the coastal belt call it "e-Buchu" and use the infusion or tea made from the leaves as a febrifuge and stomachic. It causes profuse perspiration.

The sea buchu is a branching shrub about four feet tall with closely packed somewhat fleshy leaves, 4 to 5 millimeters in length and 1 to 1.5 millimeters in width. The oil glands on the underside of the leaves are easily visible. The shrub is found along the west bank of the Kowie River at Port Alfred and grows in dune sand from Still Bay to the river.

The oil content of the leaves collected from March to August remains fairly constant at 0.32 per cent, based on the fresh leaves, but the composition of the oil varies depending on the time of year the leaves are harvested. For instance, the more volatile components occur in higher percentage in August than in March. When the leaves are dried in air much of the oil, evaporates; the loss of the more volatile constituents being exceptionally high.

Properties

When the leaves are crushed a powerful and nauseating odor is released and on warm days this odor is quite strong in areas where the plant grows thickly. The odor of the oil resembles the oriental oil of asafoetida but the investigators question that the sea buchu oil can be employed as a substitute for it. The oil easily penetrates the skin and is difficult to remove. It has a relatively high toxicity.

Sea buchu oil has the following properties:

	From fresh leaves Mar. 1943	*From fresh leaves Aug. 1943*	*From dried leaves May 1943*
Specific gravity at 15° C.	0.890	0.888	0.906
Refractive index (N_D^{δ}°)	1.4841	1.4837	1.4853
Specific rotation (α_D)	−5.1 (19°)	−8.27 (19°)	−0.66 (15°)
Sulfur content (% S)	11.0	8.4	12.9

The distillation range is 94 per cent distilling between 155 and 225° C. at 730 millimeters. The oil may be preserved in well-sealed containers without change, but when stored in contact with air it deposits a clear resin after standing several months.

Composition

The following are the principal components of the oil:

1. φ-β-pinene, 25 per cent (an unusual constituent of oils from South African plants)
2. An unidentified terpene boiling at 171-73° C. at 730 millimeters, 8 per cent.
3. Butyl-1-pentenyl disulfide, 30 per cent.
4. A liquid compound having the formula $C_{10}H_{16}O_2$, 30 per cent. This is thought to be a hexadienyl ester of *n*-butyric acid.
5. Unidentified resins, 7 per cent.
6. A trace of free acid, probably butyric.

Sea buchu oil is highly unsaturated as indicated by the fact that a neutral 5 per cent solution of potassium permanganate is rapidly decolorized in the cold. Bromine and hydrobromic acid are both absorbed instantly but crystalline products of these reactions could not be isolated. The oil is neutral and phenols and phenol ethers appear to be absent. No definite iodine value could be obtained, undoubtedly the result of disulfide interference. Saponification and acetyl values were likewise unreliable, probably for the same reason.

When 4 grams of the oil was heated with an equal volume of methyl iodide in a sealed tube immersed in boiling water for 48 hours, small colorless cubic crystals began to form with the simultaneous liberation of iodine

(*Continued on page 725*)

[1] *Transactions of the Royal Society of South Africa 31*, Part 1, 111-24 (1946).

THE DENTAL MARKET

By WILLIAM T. DOYLE

ACCORDING to the American Dental Association pre-war studies revealed that the average dentist treated and advised some 430 patients each year—over twenty-eight million people. Dental Survey estimates the total volume of dental business is around 300 million dollars. It is not hard to understand, therefore, the current interest of some of the drug manufacturers to get a greater share of this market.

With World War II over it will not be surprising to find people getting better and more frequent dental care. More than twelve million young men and women were introduced to the importance of oral hygiene.

Survey of Dentifrices and Mouth Washes

A recent interesting drug products survey among former service men by the American Legion Magazine revealed some worthwhile information regarding dentifrices and mouth washes.

Under the dentifrice section of the report it was evident that most of those queried used a cleansing agent of some kind for their teeth. Tooth paste led with 57 per cent followed by tooth powder which showed a 38 per cent preference. The liquid dentifrices came up a rather poor third with only 4 per cent. Of the tooth pastes, Colgate (38 per cent), Ipana (21 per cent) and Pepsodent (16 per cent) were the most popular. The tooth powder summary of preferences showed Dr. Lyon's (29 per cent), Colgate (21 per cent) and Pepsodent (17 per cent) as the leaders. In the liquid dentifrices class Teel (87 per cent) ran away from the field followed by Craig-Martin, Peroxide, and Listerine —each registering only 4 per cent each.

The mouth wash survey showed that about fifty per cent use the washes and the other fifty per cent do not. As was to be guessed Listerine was the brand of choice (58 per cent), Lavoris was second (11 per cent) and Pepsodent came up third (10 per cent).

The 1946 Consumer Analysis conducted by the Milwaukee Journal brought out the following interesting facts regarding tooth paste and tooth powder buying habits in the greater Milwaukee market:

Tooth Paste

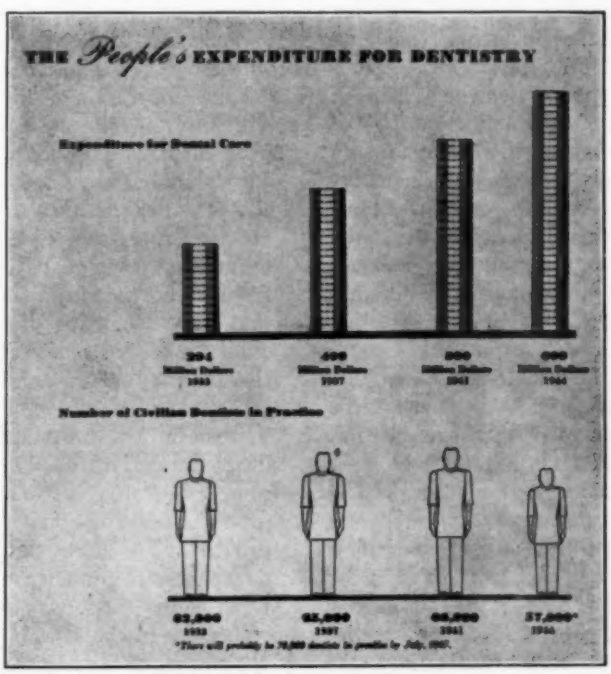
Increase in buyers. A total of 167,803 families, or 73 per cent of all families, buy tooth paste in 1946, compared to 157,745, or 69 per cent, in 1945.

By income groups. There is very little variation in the percentages of families in the various income groups who buy toothpaste.

Number of brands. In 1946, there are 50 brands of tooth paste in the market, compared to 52 in 1945.

Colgate is most popular. Each year this brand has shown increases in both number and percentage of users. In 1946, it is preferred by 53,697 families, or 32 per cent of those buying tooth paste.

Store distribution. Ipana leads in independent drug store distribution in 1946 with 89 per cent. It is also stocked by Reed chain stores and all of the department stores.



Tooth Powder

Continuing decrease in use. For the second consecutive year, the Consumer Analysis shows a decrease in both number and percentage of families who buy tooth powder. In 1946, 110,114 families, or 48 per cent of all families, are buyers.

Larger number of brands. There are 59 brands of tooth powder in 1946, compared to 52 in 1945.

(*Continued on page 720*)

WATCHING DISTRIBUTION

With the End of Shortages, Wholesale and Retail Druggists Can Expect Increased Sales as a Result of Developments in Medicine During Recent Years.

WHEN IT is considered that the welfare of this industry depends very largely upon the wholesale and retail distributors of the products of the industry it is wise on occasions to look at these distributive outlets as a guide to the future trends of the industry. The main distributive channels of the products of the industry remain largely the same and wholesalers will also be a main factor despite the rise and fall of other methods of distribution. We well remember the boom times of the late twenties when many manufacturers in this industry were busy thinking up methods of giving retailers greater profits on their products so that their products would be more strongly favored by the man behind the counter of the retail store. These methods included deals and free goods, push money to the people behind the counter, and among other things, stock in a corporation which paid dividends depending on the amount of goods sold. Came the break of the thirties and most of these trick schemes were abandoned. Manufacturers returned to do business largely through wholesalers because this was the cheapest and safest way of distributing their goods. During the recent period of the shortage of supplies and rising costs, manufacturers have not felt the necessity of resorting to outlandish or different merchandising schemes and things in this direction have been very quiet.

However, we have now worked somewhat away from the war, and, whether we like to believe it or not, the time is fast approaching when goods will be in plentiful supply and merchandising efforts will have to be more strenuous if sales volumes are to be maintained. The wholesalers in this field are unchanged to a very great degree but they are busy in trying to hold down their costs since if they do not they will have to fight for greater discounts and this can only lead to higher prices. The chain stores, however, are making material changes in their set-ups. These organizations are scrapping large numbers of their existing stores to make way for extremely modern so-called "block-long stores which will be fewer in number but departmentalized with extremely attractive displays of merchandise in all departments. Shopping in these stores will be a pleasure since a purchaser will be able to see almost everything that he desires. However, to the person who wants to buy several things which are in different departments, buying in these stores might prove to be quite inconvenient and time-consuming. For the coverage of the areas formerly covered by the smaller stores in the chain, the chain organizations are planning a large and strong extension of their agency systems into the stores of independent drug stores. Therefore, these chain organizations are going to increase their functions as wholesalers of the goods of all manufacturers if they can get the cooperation of the manufacturers.

Before long the manufacturers can expect pressure from these various types of distributors as to which one should be favored, and as to why the manufacturers should not do business through one type or another of distributor. However, these are the usual conditions that obtain when goods are freely available and manufacturers are anxious to have all the distributive outlets that they can. The department stores are going to enter the picture of the distribution of the products of this industry to an increasing degree as are the large grocery and other type of chain stores.

However, the sharp increase in the number of specific drugs for various diseases which can be sold only on prescription are going to decrease the flow of all types of products of this industry through outlets other than drug stores or stores that have an actual prescription department continually attended by one or more registered pharmacists. Another example of the increasing restriction of the sales of drugs to the drug stores are the new regulations surrounding the sale of barbiturates

as the result of the increasing use of these preparations in cases of suicide. Here is an instance of restriction of sale of drug products with which no one can have any quarrel. The facts are clear. The use of barbiturates by people taking their own lives has been increasing sharply, so that the most stringent of regulations must probably be placed around their sale and distribution. Likewise it is essential that people be protected against the free use of sulfa drugs, penicillin, thiouracil, and many other products which are invaluable when used under the direction of a physician but which are entirely too dangerous for use in self-medication.

For this reason, and for the reason that people are going to the doctor for their ailments to a greater extent because of the higher income of people generally and because of the increase in sickness and hospitalization insurance, the doctors, the physicians supply houses, and the hospitals of the country are taking on an increased significance as distributors of the products of this industry. In many instances manufacturers will by-pass the wholesalers and retailers in these sales, as has long been the custom. However, with the increased use of drug products today as the result of the development of these numerous specifics over the past ten or more years, it is doubtful that the retailer and wholesaler will notice any decline in business as the result in the increase in these direct sales. For certainly the wholesale and retail druggists will get a very large share of the business done in these specifics since relatively few of the cases using them will be hospitalized, and the doctors do not as a general thing dispense drugs of this type.

The one thing that is certain in the future is that the druggists are in for a sharply increased business in ethical drugs and in prescriptions as a result of the startling developments in medicine during recent years. And as the retail druggists become increasingly prosperous as a result of this increase in the most profitable part of their business, they will, by and large, expand the stocks of their other merchandise such as perfumes, cosmetics, and other things, with the result that they should feel a real upsurge in business if they are normally intelligent in handling their stores. Doubtless this prosperity, however, will cause an increase in the number of stores in each town, but that is to be expected and that is also to the benefit of the manufacturers, except those in the cosmetic and perfume business who act on a selected distribution system of one retailer in each town or village.

Manufacturers generally are planning to take advantage of this new set of conditions which is starting to arise and which will be in full swing before many years have past. The time has come to study closely the trends in distribution over the years that lie immediately ahead and plan accordingly. The one who senses these trends properly first and has his plans laid so he can take advantage of the conditions that will obtain is the one who will take the lion's share of the business.

As is usual in this industry, enemies can be easily made if plans are not made to assure protection for those who have long been the mainstays of the distribution of the goods of the manufacturers. And when goods again are flowing freely and manufacturers are bending all their efforts to get wholesalers and retailers to push their goods ahead of the goods of competitors, the good-will of the distributors will be of utmost importance.

The difficulties caused by price-cutting seem to have been eliminated by the Fair Trade Acts and all effort should be made to keep these laws and the Federal enabling act unchanged. For when there are available more goods than consumers will buy, the tendency to cut prices at the expense of the manufacturer's reputation will again become prevalent. This is a headache that most people in this industry will long remember, and it is one of the things that should never again be allowed to arise to upset the distributive plans which manufacturers develop for proper orderly distribution of their goods through the recognized channels that are so vital to the manufacturers of this industry.

DRUG DETAILING: In the March 1946 issue of your magazine, you mention in an article that papers and texts on detailing physicians are available. Will you oblige by sending what information you have as to such articles and their availability. Des Moines.

You may obtain information on detailing from the following sources:

(1) "Detailing the Physician" by Tom Jones.

(2) Write to the American Pharmaceutical Manufacturers' Association, 608 Fifth Avenue, New York, requesting any papers which have been presented before the APMA on the subject of detailing. Of particular interest would be papers by Messrs. Petersen and E. L. Patch.

(3) Also of interest would be Dr. Paul Olsen's book "The Marketing of Drug Products."

BUILDING PRESCRIPTION DEPARTMENT SALES

THE National Drug Store survey conducted by the United States Department of Commerce in 1929 revealed that the prescription department is the foundation of a pharmacy. It is the professional department which furnishes an outlet for the pharmacist's background of scientific training. In addition, it carries the highest percentage of gross margin of any of the drug store departments. It would seem therefore that the pharmacist would profit most by featuring this department.

The number of strictly professional pharmacies in the United States has increased from an estimated 400 in 1929 to 700-odd in 1946. There are about 716 pharmacies filling 75 or more prescriptions a day and some 10,000 are in the 20 a day class. Indications are that more drug stores are becoming increasingly interested in improving their prescription business. It would be well therefore for the pharmaceutical manufacturer to stop and examine this trend in the light of past experience and future planning.

Several drug store surveys have shown as many as 78 per cent of today's prescriptions do not require compounding. The latest study, which was conducted in Louisville, Kentucky, revealed that out of 6,000 prescriptions 35.27 per cent required compounding and 64.73 per cent did not. It is of interest therefore that the trend is definitely swinging away from compounding and toward ready-prepared pharmaceutical items. No doubt the professional service representative and 16 million dollars a year for research have joined together to influence United States physicians to specify the manufacturers' products. Those pharmacies which have recognized this fact are bending every effort toward getting more of a professional and profitable business.

The drug store proprietor is quick to recognize the vast difference in the unit sale of magazines, sodas and candies as compared with prescriptions. The following two tables are taken from the 1943 Lilly Digest study. They show how prescription prices vary according to geographic location and the size of the city.

Geographic Variations in Average Prescription Prices

New England States	$1.11
Middle Atlantic States	1.09
East North Central States	1.11
West North Central States	1.06
South Atlantic States	.97
East South Central States	.95
West South Central States	.97
Mountain States	1.13
Pacific States	1.22
United States	1.06
Canada	1.03
Average	1.06

Variations in Average Prescription Prices, by Size of City

Under 5,000 population	$1.08
5,000 to 25,000	1.02
25,000 to 100,000	1.11
Over 100,000	1.11
Average	1.06

Also of interest is another table from the Lilly study showing the monthly fluctuation in prescriptions filled per store.

Monthly Fluctuations in Prescriptions Filled per Store

Stores compounding:	J	F	M	A	M	J	J	A	S	O	N	D
1 to 5 Rxs daily	100	95	104	91	88	80	81	84	85	92	101	136
5 to 10 Rxs daily	100	97	106	98	94	87	85	87	90	97	103	147
10 to 20 Rxs daily	100	93	103	94	88	84	83	85	88	93	100	137
20 to 40 Rxs daily	100	94	105	99	93	88	90	90	92	97	102	142
40 up Rxs daily	100	95	107	99	97	96	98	99	97	101	106	134
Average	100	95	105	97	93	89	90	91	92	97	103	139

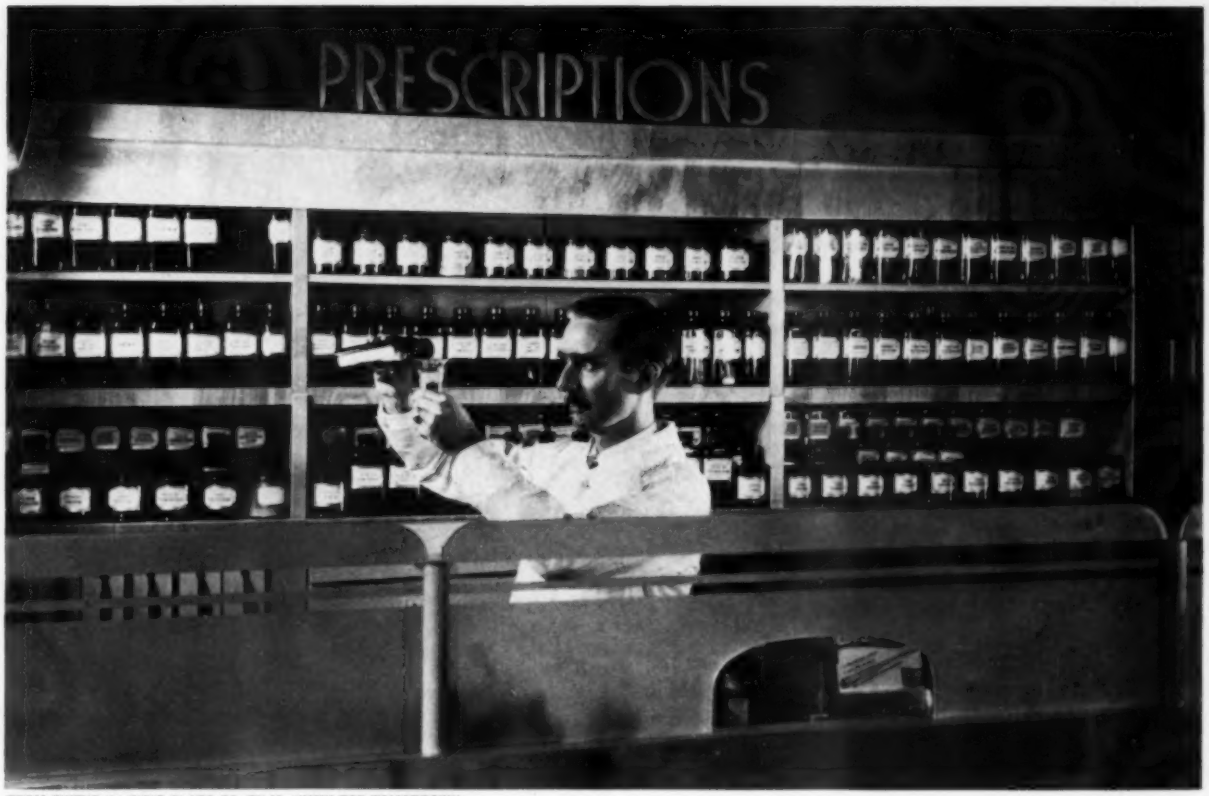
A Plan Is Needed

Prescription business does not come into a store by accident. Usually there is a carefully worked out professional plan that is doing the job. The following are examples of how four pharmacy proprietors set to work to increase their prescription business.

Southwestern Chain—In a good-sized city in the southwest, a well-known local chain set to work to increase the number of prescriptions filled in a day. From the very beginning the problem was approached in a careful, well thought out manner. The campaign to build up prescription business was considered the most important part of the chain's promotional efforts. The first step was securing the good will and confidence of the physician. It was believed that without the doctor's knowing what was being attempted, and without securing his full cooperation, the promotion would be a failure.

First a detail man was engaged to contact the doctors regularly and constantly. Fortunately a man who had fifteen years experience in the professional service field was found. He had a large acquaintance with physicians and they in turn had confidence in what he told them.

After the detail man had fully acquainted himself



FROM OWENS-ILLINOIS GLASS CO. FILM, "NOW FOR TOMORROW"

with the physicians in the area being covered, an advertising campaign was created entitled "Telling the Public About the Doctor." The ads were built entirely around the doctor and explained to the public facts about the cost of medical education, the doctor's life span, his hours, the humanitarian service he renders and many similar subjects. The series ran for a period of one year and were endorsed and approved by the county medical society.

Arrangements were made with the telephone company to install in each store a special phone which became known as "the doctor's phone." This phone was without a dial, and thus could not be used in making outside calls. A special letter was sent to the list of doctors telling them about the special phone to improve prescription service, and with the letter were enclosed three small cards approximately 2½ inches by 3½ inches giving the special phone's number. The doctor was told that one of the cards was for his own desk, one to be placed in his billfold, and one to be given to his secretary for her desk. The detail man followed up the mailing to see that the doctor received his letter and telephone cards, and also to check that they were being used.

Each year at Christmas every doctor received a gift. The first year he was sent a quality leather billfold. The physician's name was printed in gold on the billfold. Every year thereafter a different gift was selected. One time it was a thermometer and fountain pen and another time a leather pocket secretary. The doctor's wives also received small gifts such as a box of candy or a fruit cake. In January of each year a party was held for the doctors and their wives. Dinner, dancing and favors made it a most interesting evening.

A special instruction sheet known as the "Pharmacist's Law Book" was given to the company's entire sales force. It told them the things to do and not to do, and at any time they were in doubt they would refer to the special instructions for guidance.

Some of the other prescription business aids were:

(1) printed prescription blanks, printed free.
(2) Over the counter prescribing was discouraged in doubtful or unusual conditions.
(3) The store's patent medicine advertising was scrutinized and controlled.
(4) The doctor's office supplies were made available at reduced costs.
(5) All prescription deliveries were prompt and efficient.

Each store was supplied with a special form to keep a record of the number of prescriptions every doctor gave the store in a month. The manager was responsible to see that the report was sent into the office each month where it was recapitulated, one copy filed and another given to the detail man who would follow through with the doctors, thanking the ones who had outstanding records and concentrating on those who did not. (*Continued on page 726*)

EMULSION TECHNOLOGY

(Part II)

By I. R. HOLLENBERG, M.S.*

HAVING reviewed, in the initial article of this series, some of the current theories regarding the phenomena of emulsification, we will now touch upon the more practical aspects of the problem as they present themselves to the emulsion chemist.

The ingredients of an emulsion formula fall naturally into two categories: in the first, we have those which must be included; in the second, we have those which may be added or omitted at the option of the formulator. The type and percentage of the materials in the first category are fixed by the nature and function of the finished preparation and cannot be varied to suit the convenience of the technician. They usually consist of the active ingredients of the preparation, together with the solvent or vehicle which contains them. These may be found in either the water—or the oil—phases and sometimes in both. With the fixed factors at hand, the next consideration is what type of emulsion is best suited for the particular purpose. The choice of a water-in-oil or oil-in-water emulsion will then be a prime factor in fixing the phase volume ratio. In determining this, a good rule of thumb, which is subject, of course, to some modification, is that water-in-oil emulsions should contain over 50% oil, while oil-in-water emulsions should have more than 50% water. In other words, it is desirable to keep the volume of the dispersed phase smaller than that of the volume of the disperse phase in order to insure stability. These basic considerations are of extreme importance. In effect, it is necessary to lay a firm foundation for the emulsion structure in order to avoid difficulties later on. If the emulsion scheme is fundamentally unsound, none of the emulsifiers, no matter how complex or efficient, and none of the various mechanical devices will prevent the emulsion from separating. An emulsion that is basically unstable cannot be stabilized short of reformulation.

Choosing the Emulsifier

The next step is to select an emulsifier that will work under the conditions and with the materials previously determined. One of the most important considerations in determining the suitability of a particularly emulsifier is compatibility. The nature of the emulsifying agent must be such that it will not attack or affect the activity of the other ingredients; nor should they, in turn, adversely affect its emulsifying properties. For example: the acidity or alkalinity of the preparation should be determined and only emulsifiers which stand up under these conditions should be chosen. It should also be stable to the conditions of storage, shipment, and environment under which the finished preparation is used. If the emulsifier is to be used in a pharmaceutical, cosmetic or preparation food, the question of toxicity and irritability is also of paramount importance.

Types of Emulsifiers

In the vast body of literature dealing with research in emulsion technology, the emulsifiers used are comparatively simple. Most of them are such common substances as soaps, gums, casein, etc. Fortunately, the emulsion technician is no longer limited to this rather narrow field, although, excellent emulsions may be formulated with these materials. The ever-broadening field of organic synthesis has increased the availability of emulsifying agents a thousand fold and placed at the disposal of the formulator many compounds which only a short time ago were unknown. We have seen in the discussion dealing with the oriented wedge theory of emulsification how the shape and other characteristics of the emulsifier molecule affect the nature of the emulsion. Today the molecule can practically be shaped to meet the specific requirement. It may be lengthened or shortened with comparative ease; hydrocarbon chains may be hooked on; rings may be opened or closed; and almost any molecular rearrangement achieved. If greater water solubility is required, hydrophillic groups may be incorporated by several widely used methods. Should greater oil solubility be desired, the addition of lypophillic radicals is a common and comparatively simple practice. Strangely enough, the very vastness of the array of new emulsifying agents in themselves presents a problem. As their numbers increase daily, the technician is hard put to it to acquaint himself with the properties and limitations of even some of the most widely known developments. Not only does each individual compound merit investigation, but it is a well-known fact that by means of various combinations effects can be achieved which were impossible to attain by any of the individual components of the mixtures.

In order to evaluate this enormous and ever-growing group, it is necessary to at least attempt to classify them. Such attempts at classification, of necessity, will

*Van Dyk & Company, Inc.

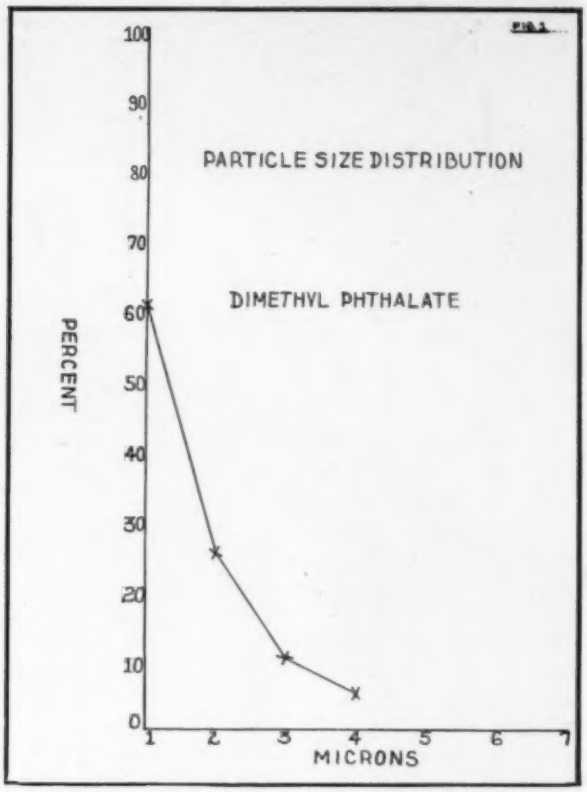
never be complete and will always seem guilty of oversimplification. With this in mind, it would seem that all emulsifiers may be classified into four structural groups, with one miscellaneous category to act more or less as a catch-all, somewhat as follows:

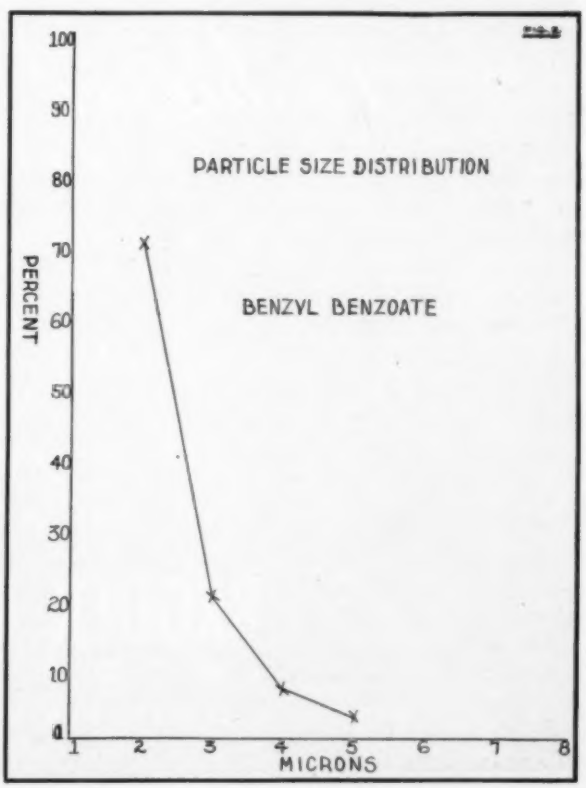
1. *Saponaceous Types*—These are the first, both from an historical and an illustrative viewpoint. Potassium and sodium soaps form oil-in-water emulsions, while calcium and magenesium derivatives favor the formation of the opposite types. They are still widely used today and in some cases are really the most efficient for many purposes. In addition to the metallic soaps, the various alkyl amine soaps are widely used, particularly in the formulation of cosmetic emulsions. It should also be pointed out that the manufacture of soaps has also been greatly improved, particularly as a result of the large-scale production of fatty acids in highly purified form. As a result of the availability of good commercial grades of fatty acids and the many advances in soap manufacturing technique, it is possible today to make soaps of far greater uniformity than ever before.

2. *Gums*—These include the various natural gums, such as acacia, tragacanth, karaya, Irish moss, quince, the varilus alginates, and such synthetic products as methyl cellulose and polyvinyl alcohol. It should be noted that the improving of the purification processes has resulted in making available natural products of surprising uniformity. We should also like to include in this classification, although obviously they do not belong here, the different inorganic colloids, such as bentonite, for instance. The justification of their inclusion herein is not due to their chemical structure but to the similarity of their behavior and application. These substances form gels whose emulsifying properties are very similar to those formed by the various gums.

3. *Esters*—This category is of comparatively recent origin. It has been found that the monoglycol and glycerol esters of the higher fatty acids have unusual emulsifying properties. By incorporating these materials in an emulsion, effects are achieved that were hitherto unattainable. The use of members of this group has increased and has been in large part responsible for the ever-widening range of emulsion technique. The first members of this series to be introduced were the glycerol and later the glycol stearates. These prod-

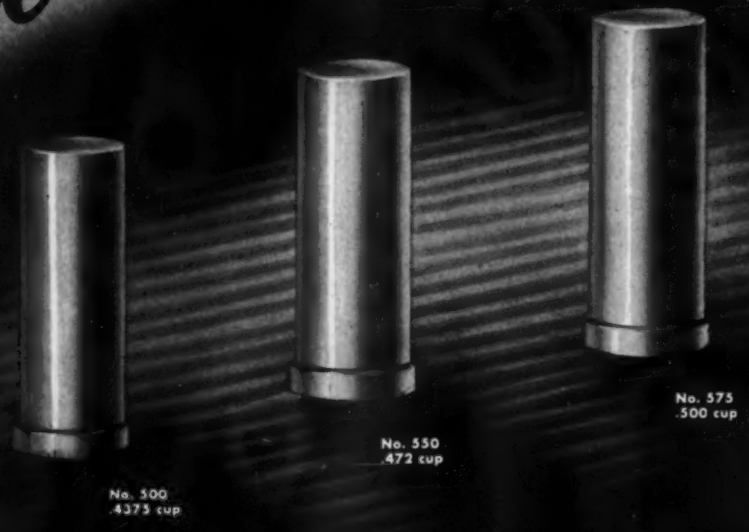
(*Continued on page 722*)





Rich Low BRASS

SWIVEL LIPSTICK CONTAINERS



"Fashioned Like Jewels"

THE ULTIMATE IN QUALITY

- De Luxe polished Rich Low brass — baked lacquer finish
- Free wheeling mechanism — It is impossible for the filler to swivel up while the cap is on
- "Click-Tite" closure*

PHONE, WIRE OR WRITE FOR SAMPLES

BRODER INDUSTRIES

INCORPORATED

167 WEST 64th STREET, NEW YORK 23, N. Y. • TRafalgar 7-0092

*Patents Pending

Packaging and Selling

Demonstration and Merchandising

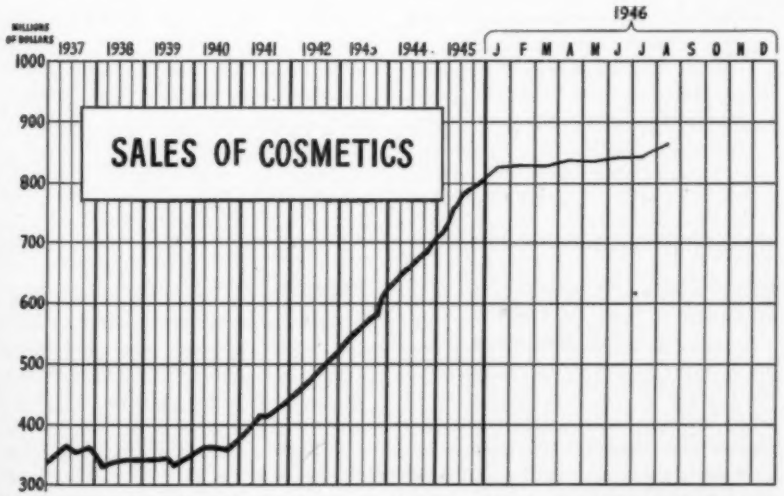
Whether the cosmetic retail demonstrator is to be or not to be will probably be decided next year, in the opinion of trade experts.

Some of the companies who are operating on a basis that the demonstration system will be retained, either by restricting distribution to stores where some proportional representation of demonstration can be established or by other methods, will still find themselves faced with a problem which already is causing basic changes in the industry. This problem, the substantially rising cost of demonstrators, would on a basis of pre-war volume move half of the demonstrators over onto the wrong side of the ledger.

Several manufacturers here, very sensitive to financial temperature changes, already see the approach of a substantial percentage of the demonstration accounts switching from war time prosperity to marginal accounts. A marginal account may mean much more to a manufacturer than the absence of profit or a net loss in any one particular store. We are entering a period where the competitive fight for counter space and for square feet in the department store is going to be very intense and where the store will look with a more discriminating eye on the profit per square foot alloted to preferred accounts.

There have recently been a number of mergers in the cosmetic business and there is every indication that there will be an acceleration of company purchases by larger institutions. A primary reason for these mergers is an effort on the part of some manufacturers to gather a group of established specialties, which added to their own products will give the demonstrator an increased volume capable of sustaining her much higher cost and capable also of exerting a lever on the store to maintain the demonstrator.

A number of new products or new lines not related to present products will be put on the market next year by some cosmetic companies. The basic reason for these new products and new lines is an effort to cut demonstration cost and not the result of a market analysis, which shows there is a place for the new line.



Retail sales of cosmetics for the twelve months ended with August 1946 totaled $863,257,000. This compares with $841,091,000 for the twelve months ended with July and with $779,600,000 for the twelve months ended with August 1945.

The legality of the demonstration system which many people believe will be settled next year, either on the basis of the Robinson-Patman Act, or on the basis of unfair competition, is a burden which is being carried almost entirely by the cosmetic industry. Many people in the industry act as if cosmetics were the only product sold by demonstrators in retail stores, that is demonstrators paid by the manufacturer, and there seems to be a general tendency both on the part of the government and the industry to isolate the demonstrator as an object to be examined without any relation to the rest of the picture.

Actually the whole problem of the demonstrator is, firstly, that it is legally tied in with cooperative advertising, with window and counter displays, with manufacturers' promotions and in fact with anything that involves the expenditure of money by the manufacturer to facilitate sales through the retail store. In the second place, any decision affecting the cosmetic demonstrators must be applied equally to a number of other industries, such as household appliances, speciality foods, kitchen gadgets, etc. Both of these factors include economic possibilities that go far beyond the narrow question of the unfairness of a cosmetic retail demonstrator.

The whole basis of cooperative advertising and every other point-of-sale merchandising which must include the demonstrator, is the natural eagerness of the manufacturer to work in close harmony with the retailer who has the facilities and the ability to sell. Basically to say that a manufacturer must give cooperative advertising on proportionally equal terms to two retailers, one of whom has imagination, energy, great merchandising ability and who has won public confidence and respect for his store, and to another retailer who is a sluggard, has mediocre merchandising ability and is just getting by with a store that has won no particular respect from the public, is unsound business and unsound merchandising. Any one in

distribution must work with the most capable sellers, must bend his efforts in that direction and cannot afford to spend time and money pulling up by the boot straps the fellow with little capabilities, particularly if this has to be done by substracting cooperative help from the capable merchants.

The truth is that in our system of distribution, not only the cosmetic industry, but in household appliances, furniture and many other fields it has been found essential by the manufacturer and has become trade practice to mark-up the goods so that he has a margin which permits him to contribute substantially to the better retailers in point of retail selling.

This basis has undoubtedly worked for greater volume and greater distribution in the United States and there can be little question that a large part of the promotional genius in the country has come from manufacturers, and the retailers have come to depend upon this, using it effectively within the various degrees of their merchandising intelligence and energy.

A large part of the growth of the cosmetic industry can unquestionably be credited to the cooperative sales ability of leading stores. These stores have had the merchandising capacity and the public confidence which permitted them to introduce new ideas in cosmetics, to stimulate and start rolling practically everything that has become a success in the industry.

It must be agreed that the bulk of the retailers have contributed nothing, but were the ones who later profited in the market created by good selling and education by the manufacturer working in conjunction with the leading merchants.

It could easily be that the elimination of the demonstrator from cosmetic selling would have a lasting effect upon the cosmetic business, on the very type of retailer who inspired the laws which have brought the demonstration system into question. These retailers in their demand to share equally or in proportionally equal terms with the leading retailers in all of the cooperative selling aid furnished by the manufacturer would be starting a dilution of selling aids from the capable to the less capable merchants which could only result in a weakening of the inspirational creative selling at the top and this in turn would soon affect the sales of the less capable retailer, the smaller retailer who has felt that he has been at a great competitive disadvantage in cooperative advertising, in demonstrators and in smaller selling devices, as compared to the leading stores.

Actually he has probably profited to a much larger extent by the widening of the market in his local community of many new products by means of this system, more than he would have profited if all of these aids had been diffused through all the stores to the point where they became ineffective or much less effective.

The Cosmetic Trend

The fact that the total of cosmetic sales has grown faster during recent months, including most of 1945, than that of some of their more regular retail channels is making cosmetic manufacturers wonder whether they are giving all the attention they should to the many new retail outlets that have entered the field during the last years, especially since the end of the war. $67,478,000 were added to toilet goods volume during the twelve months from July 1945 to the end of June 1946 over the same period of a year ago, and there is evidence that a large share of this business has come from novel sources. What they are, constitutes one of the outstanding problems of toilet goods merchandising; because it will be of considerable effect upon the future growth of the cosmetic markets. Of even more importance is an answer to the question, whether these new outlets are the result of planned market development by the industry or came to it because of the enterprise of groups of retailers who want to hitch their wagon to the rising star of the toilet goods business.

While there are, no doubt, some large toilet goods manufacturers who have the full answer, an even casual observation of the trend of fashion retailing in the larger cities brings evidence of a growing number of new hybrid retail stores that take the best from the original type, drop some of their drawbacks and add novelty from others. New already recognizable types, resulting from this tendency, are shoe stores handling leather dress accessories, dress accessory stores handling lingerie and boudoir foot wear, costume jewelry stores dealing in handbags, men's furnishing stores featuring women's apparel, a new kind of women's specialty store dealing in fashion accessories, including blouses but excluding apparel.

Everyone of these stores is a "natural" for cosmetics and, as a group, they are certainly making a substantial contribution already to cosmetic volume.

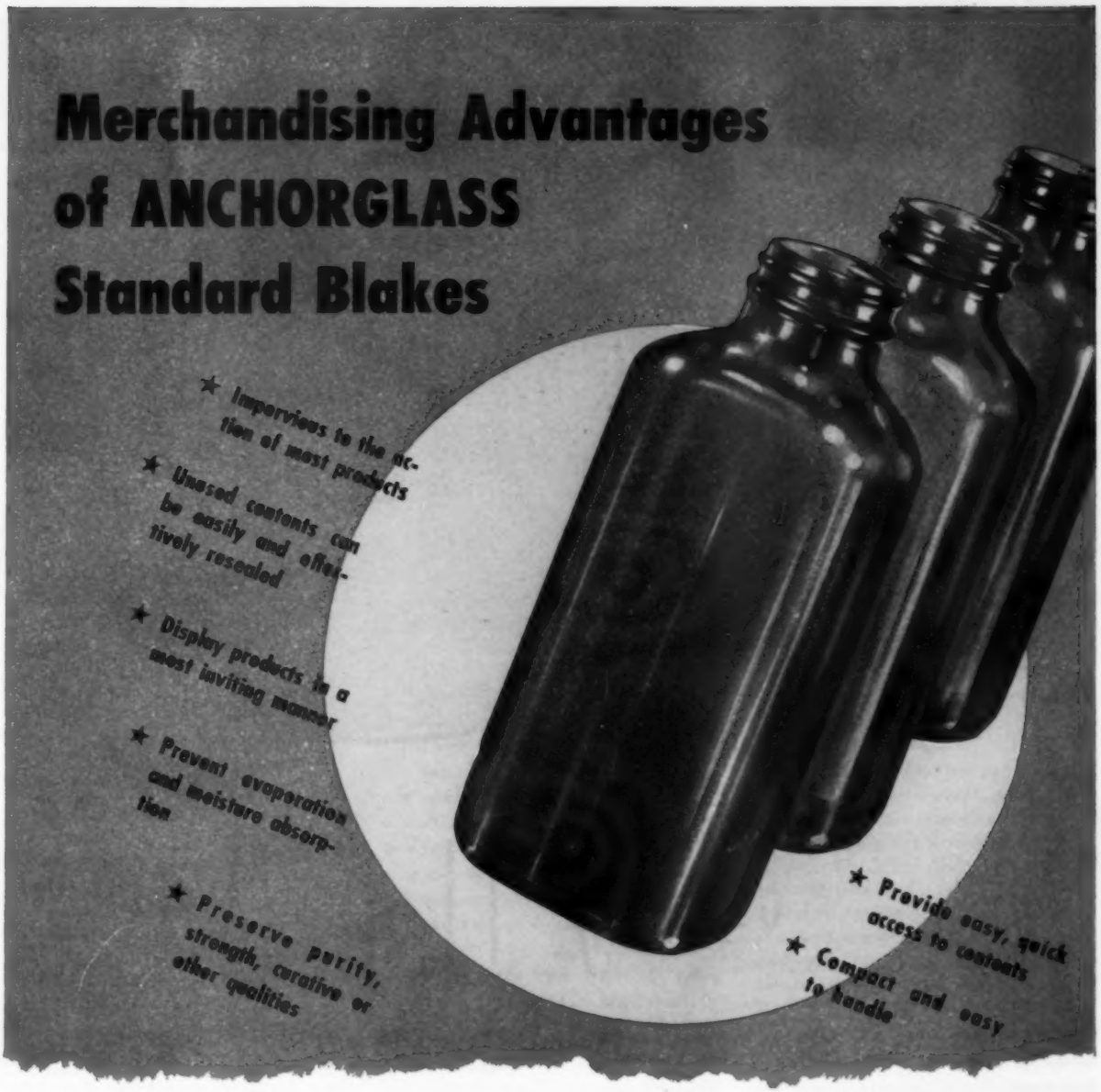
It is another question, whether they are directly or indirectly responsible for the recent growth in the demand for cosmetics or whether the growing demand for cosmetics calls rather for a corresponding increase of the number of outlets.

Leaving the men's outfitters whose interest is largely in men's cosmetics out of the picture, it seems that the majority of these new-comers to the cosmetic retail markets are not much help to the rank and file of the cosmetic products that account for a large share of the sales made by department stores, drug stores, etc. Their cosmetic urge expresses itself almost entirely in lipsticks, compacts, vanities, perfumes and the more "exciting," nail polishes for which the recent trend to lurid descriptive names has created an exceedingly fertile field in stores who drive on a luxury atmosphere. While not exactly lacking in quality-consciousness their buyers are looking for appearance first of all, although a good name carries as much weight with the customers of these stores as it does at any other toilet goods counter.

However, the appearance of these stores in the toilet goods markets, and the good success that has accompanied their operations, carries a novel message for the cosmetic industry. It is, that cosmetics are outgrowing many of their earlier limitations and that they are establishing themselves under the new guise of a "fashion accessory" in many store groups where until recently they have played only a minor role.

Repetition in Advertising

All advertisers are facing a situation next year in which their advertising budget will buy considerably less advertising space, which means of course will give them less coverage or less consumer and trade contact through advertising. The reason for this, of course, is the universal increase in advertising rates due to higher production cost in publishing and substantial increases in the


Merchandising Advantages of ANCHORGLASS Standard Blakes
★ Impervious to the action of most products
★ Unused contents can be easily and effectively resealed
★ Display products in a most inviting manner
★ Prevent evaporation and moisture absorption
★ Preserve purity, strength, curative or other qualities
★ Provide easy, quick access to contents
★ Compact and easy to handle

PROTECTION—Convenience—Visibility—three top consumer preferences in package selection—are outstanding properties of Anchorglass Standard Blakes.

Anchorglass containers are impervious to the action of most products. They prevent evaporation and moisture absorption. They preserve all the original strength, purity, curative or other qualities peculiar to your products. Withal, they are most sanitary containers, providing greater protection to health.

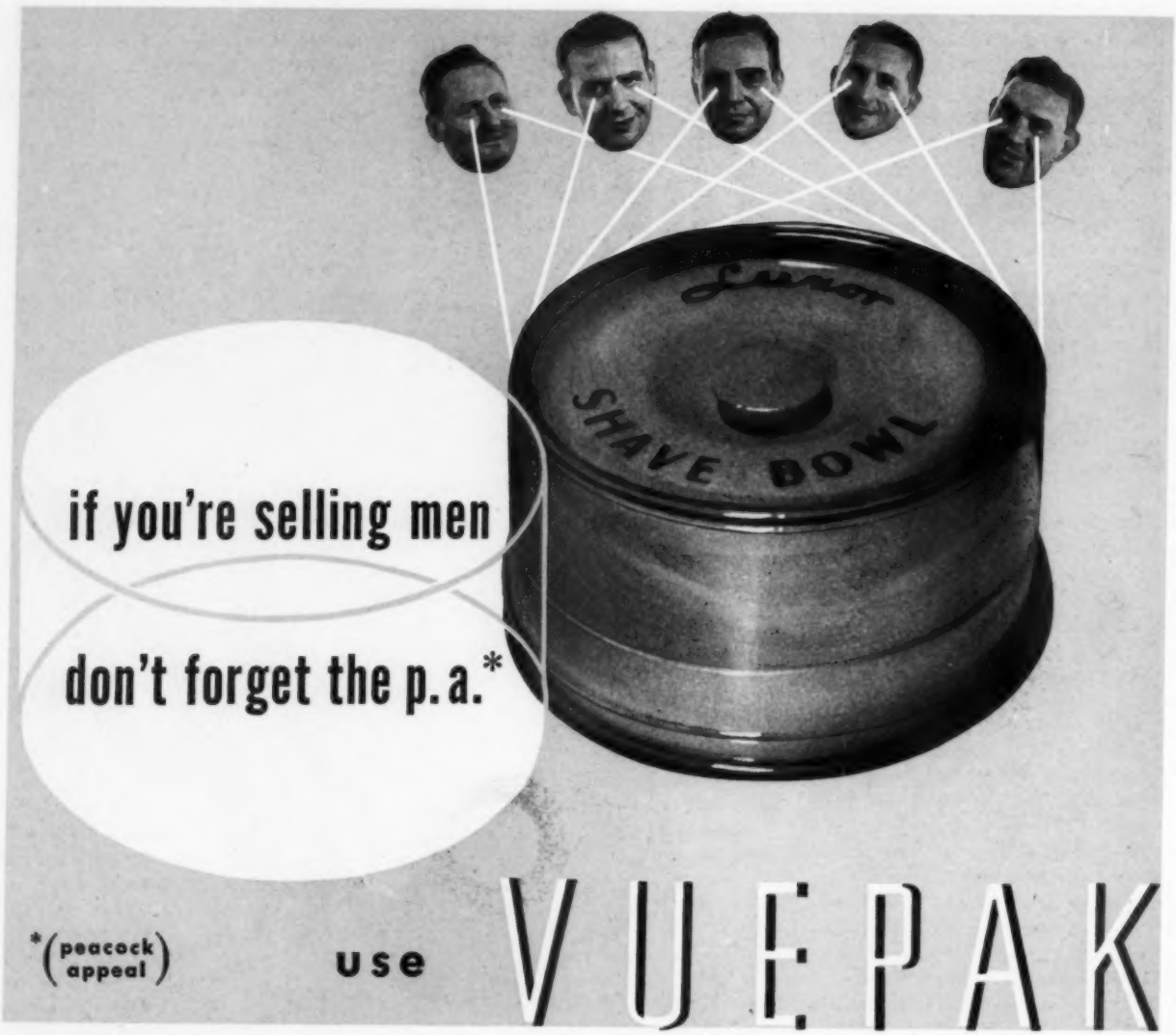
Anchorglass Standard Blakes are compact, easy to handle, easy to open. They may be easily and effectively resealed, time after time, until the contents are entirely used. They provide a visual inventory of the supply on hand. And the clean, sparkling brilliance and clarity of Anchorglass containers appeal to the particular housewife.

Then, too, there are numerous production advantages obtainable with low-cost, strong, lightweight Anchorglass Standard Blakes. Ask your Anchorglass representative for the complete story.

Tune in "Crime Photographer" every Thursday evening, entire Coast-to-Coast Network, CBS.

Anchor
CONTAINERS and CAPS

PRODUCTS OF
ANCHOR HOCKING GLASS CORPORATION
LANCASTER, OHIO



if you're selling men

don't forget the p.a.*

*(peacock appeal)

use VUEPAK

He-men, no less than women, find merchandise packed in sparkling, individual "showcases" of Vuepak flattering to their taste, irresistible.

It's the "peacock" in them!

That's why, today, so many quality products, like male cosmetics, go to market in beautiful Vuepak . . . the de luxe packaging material, *transparent and rigid.*

Vuepak reveals in full all the color, quality, design, and beauty of your product . . . and

Vuepak protects those qualities during the use of the product. (It's greaseproof and tough, too!)

* * *

If you're selling *either men or women,* why not give your product the extra sales impetus of a Vuepak, full-view, fully-safe, package? Today Vuepak costs are fully in line, thanks to new, fast fabricating techniques. For complete Vuepak details on your packaging problem see your box supplier today, or write direct: MONSANTO CHEMICAL COMPANY, Plastics Division, Springfield 2, Massachusetts. In Canada, Monsanto Ltd., Montreal, Toronto, Vancouver.

QUESTIONS AND ANSWERS ON VUEPAK

1. **What is Vuepak?** Vuepak is a transparent, tough, rigid, beautiful Monsanto cellulose acetate.
2. **In what form is Vuepak available?** In sheets up to 30″ wide, and in continuous rolls 30″ wide up to 1000 ft. long, in thicknesses up to .015″. Available in .020″ thickness in rolls with unit finish or in 20″ x 50″ press polished sheets.
3. **In what thicknesses is it ordinarily available?** In six standard gauges 0.005″ to 0.020″.
4. **Does sunlight affect it?** No.
5. **Is it affected by heat?** Not under ordinary temperatures. It begins to soften after 200° F. Underwriters' Laboratories classification, "slow burning."
6. **How can it be fabricated?** It can be drawn, shaped, formed or folded into almost any shape with inexpensive dies. It can be embossed, stapled, printed, cemented, or combined with other materials.

Vuepak: Reg. U. S. Pat. Off.

MONSANTO PLASTICS

SERVING INDUSTRY...WHICH SERVES MANKIND

VUEPAK

graphic arts, that is engravings or the plates used in advertising.

Since this comes at a time when most producers and distributors feel that for the first time in four years they will seriously need advertising, either to hold their position or for contemplated expansion, a great deal of discussion has been going on in advertising circles to find ways and means of making their budget do more work. A number of surveys have been made which indicate just how large companies are proceeding to meet this situation. A recent survey by "Advertising Age" of 589 industrial advertisers, active members of the National Industrial Advertisers' Association indicates two basic procedures now under way.

One is an effort by increased market research and intensive copy research to make a fewer number of advertising pages do the work of their formerly larger schedule. Since the cost of engravings and electros have advanced more than anything else in the advertising field, by far the largest number report an intensive study of the merit of repeated advertisements. This latter consideration is receiving a great deal of attention in advertising and a number of advertising agencies and publishers, including McGraw Hill, are now making surveys on this subject.

It can be said that American advertisers have become obsessed with the idea that they must say something new in each advertisement and in many cases this has gone to ridiculous extremes. A striking effective advertisement which proved its value has been discarded, simply because it appeared once, in

favor of an advertisement which may have and often has been inferior in every way, and yet readers' surveys have shown that a startingly small percentage of the readers of a magazine consciously note and remember any one advertisement in an issue of a magazine that they have read.

Perhaps the most striking example of the value of repetition of an excellent advertisement has been furnished by the cosmetic industry in recent years. The now famous Tabu advertisement of the man with the violin which first appeared in Beauty Fashion over 6 years ago, has been repeated in a countless number of insertions in many magazines and many newspapers over these entire six years and is now appearing in large space in daily newspapers as this is written. It was over 2 or 3 years ago that the company announced that there had been 50 billion impressions of this advertisement. To date the company has spent over $3,000,000 repeating that one adverstiement and feels that it will never die or lose its effectiveness.

Experience in Beauty Fashion has proved that an excellent advertisement will very often have more value when repeated several times than several different advertisements, even though all of these advertisements had equal value to the original one. The reason for this is that a repeat advertisement over a period builds up in the reader's mind a subconscious feeling that he has seen this advertisement in other places or that he has seen it before, and this in turn tends to create the impression of a widely advertised product.

Since both the retailer and the American public attribute merit to a product that is widely advertised, this psychology of repetition may prove to be an effective and valuable new discovery in advertising if advertisers are forced by rising costs to repeat their best copy.

Shoot, You're Faded

A new men's line that ought to be a "natural" in the cosmetic field, especially with the ex-service men who played so much parchesi during the war, is "Pass" now being distributed by Stephen Powers Ltd., Los Angeles. The porcelain packages are in the form of dice and are available in black, green and saddle tan. Included are after shave lotion, cologne and men's talcum. Each item retails for $3. Refills are priced at $1.50 each.

Colonial House, a division of Colonial Dames, is featuring a deodorant cologne especially designed for men, called Bachelor Button, featuring four scents.

Courtley has announced a sterling silver line which will include hand-hammered sterling silver flagons in the usual Courtley shape with the horse head stoppers.

Pass is a new line of men's toiletries packaged in underglazed porcelain dice in black, green and saddle tan and consisting of after shave lotion, cologne and talcum.

Beauty of design that lends glamour to your product.

Sturdiness and durability that insures you against undue shipping loss.

Uniformity that means rigid adherence to high standards.

Dependability that insists that performance match the promise.

SUM IT ALL UP IN ONE WORD:

Quality---

100 years of experience and "know how" backs our sincere assurance of quality—in stock or private mould bottles, machine or hand made.

SWINDELL BROTHERS, Inc.

200 FIFTH AVE., NEW YORK ★ BALTIMORE 30, MARYLAND ★ ROBERTO ORTIZ • HAVANA, CUBA

Swindell

There are two interesting features to Charles of the Ritz "Chatelaine"—the cap is connected to the lipstick by a dainty jeweler's chain, and the swivel appears at the top, enabling one hand control.

The Dapper Dynamo Does It Again

Looking back over several years it is now fairly easy to analyze the factors which made Seaforth Men's Toiletries, a brilliant success and Alfred D. McKelvy a notable name in the cosmetic industry. For one thing the timing was perfect.

A number of small pioneers, and a few large companies had tried out the class field in men's toiletries, had awakened some department store interest, but either through lack of capital or lack of enthusiasm had failed to demonstrate their ability or serious intention of pursuing this new cosmetic development.

A four piece polished brass cosmetic ensemble is Kathleen Mary Quinlan's contribution to gift-giving—a gleaming powder box, compact, rouge case and lipstick.

When Al McKelvy with his boundless enthusiasm, with excellent packaging, a balanced line at a moderate price entered the market, the trade was ready to help any one who had the product and the spark that was needed to put it over. The spark was certainly there. During that first year Al McKelvy probably covered more mileage as a traveling salesman than anybody in the trade has ever done before or since. In Seaforth, McKelvy gave the trade the product, the package, the price, the merchandising competence and the spark, at the right time. Now for the second time (or is it the third time) under vastly different circumstances he has done it again. With the two perfumes, Etcetera and Vice Versa, under the company name of Victoria, Lt'd, he has certainly not had the timing or the market, as it is supersaturated with perfumes both French and American.

Starting in this year under the most heartbreaking circumstances in cosmetic history, limited with all sorts of impossibilities in package design and in securing materials, he had at last reached the point of first shipments. What is remarkable in the establishment of this company and what should be recorded as one of the notable case histories in the trade, is the fact that this one man with the assistance of a very competent secretary and a very competent salesman as his salesmanager, should with this three-person organization enter the perfume business in probably the most difficult period which has ever been encountered, when stores are dropping many lines, frankly refusing to listen to many new French lines and new American lines with famous names in other fields, that this new company with only dummy packages at this date, no advertising plans beyond the intention to advertise, should sign up hundreds of the leading department stores in this country on contracts averaging from $400 to $750 per store; that they should enter the toilet goods shows in a few cities and not only attract crowds of interested buyers, but come home with plenty of orders at a time when many of the ex hibitors failed or nearly failed to pay the cost of the show.

It would seem that there could be only one answer to this phenomenon, and that is the really remarkable asset value of a trade reputation. Any detached observer at one of these cosmetic shows watching the McKelvy room must have been impressed by the interest showed by buyers, who were

Et cetera and Vice Versa are the two scents which make up the Victoria Ltd. line. Both come in perfume, toilet water, cologne, bath oil and sachet.

casually walking past many of the other rooms, showing what a remarkable thing confidence is;—that is confidence in a man's ability to perform, and confidence in his ability to make a success.

Too many of the manufacturers have failed to analyze the full scope and value of a trade reputation to themselves and to their business. Their attitude is too often one of eagerness to sell the store, followed sometimes by an eagerness to pull the goods out of the store.

The warm personal qualities of either an individual or a personalized company, lacking in a policy may mean the absence of one of the real substantial ingredients for success.

Amor Skin is back on the market again—the same formula in the same attractive 22 karat gold decorated Pompeiian jar—as a complexion aid for women over 30.

For MODERN PACKAGING

New Perfection
DROPPING PARTS

Graduated or Plain

NEW PERFECTION DROPPING PARTS are the best to be had for any particular product. We feature . . .

1. Cleanliness.
2. Dropper glasses, extra strong, exceptional uniformity, various styles, Ball Point, Blunt Nasal, Regular, Semi-blunt, and the popular U.S.P. for internal use.
3. Bulbs:—Non-toxic natural, Buna, Neoprene, and non-swelling Amekine.
4. Caps:—All styles in metal and plastic, and the extra strength, extra depth non-rolling.
5. Bottles:—New Modernistic, 6 sizes, 2cc to 2 ounces in 4 colors of glass, Amber, Blue, Clear, and Green.

REMEMBER!

The quality of a dropper fitment remains with the product until completely used. Future sales depend on perfect functioning droppers — PERFECTION DROPPER FITMENTS give you that assurance.

"Glass Goods of The Better Kind"

PENNSYLVANIA GLASS PRODUCTS CO.

428-432 N. CRAIG ST. PITTSBURGH, PA., U.S.A.

Once again Khus Khus, the tropical fragrance from the island of Jamaica, is available in the United States. Ramos, Inc., is offering Khus Khus in three sizes, 1 ounce, ½ ounce and one dram.

Crepe de Chine parfum will be presented in America this season for the first time since 1939. A new series of bottles and boxes has been designed in Paris.

Ann Haviland is featuring Purple Lilac, a fragrance as enchanting as fresh purple lilac in full bloom. Purple Lilac comes in perfume, toilet water, bath oil, body and talcum powder and sachets.

Salary Stuff

The demands of labor for wage increases that will keep pace with the cost of living and the endless inflationary strikes in this country to obtain that so-called objective, make most of us lose sight of the fact that quite a few million people who are supposed to be above such sordid necessities are being affected in the same way.

This was brought home the other day when a sales executive in this industry, employed by a large company, responsible for the business of a large territory, made quite a unique proposition to his company.

He offered to sign a contract to work for the company for 10 years for nothing. His plan seemed very logical and very simple. He would maintain his living expenses on exactly the same scale that he had been living on and within his income. The company would simply give him an expense account to pay for everything; the food, the rent, the taxes, his insurance, his son in college, his moderate entertainment. He pointed out to the company that while his expenses would go up with inflation, as his salary should do, it would decrease very rapidly as prices adjusted themselves.

When he was asked what he would do for savings, he said, "Hell I haven't saved a dime for five years anyway."

We understand the company rejected this proposition, a plan which any business man can sympathize with. Nevertheless, there is a very intriguing thought in remuneration for executives based on all living expenses paid by the company, plus a bonus for savings. Certainly this idea isn't original, for we recall that years ago General Electric had their famous scientist, Steinmetz, on just about that identical basis of remuneration.

Self Atomizing Perfume Container

A non-refillable, self-atomizing handbag or pocket perfumer, registered under the trade-name of Charmeuse, has been brought out by Carolus Fortier, 635 Ave., Querbes, Montreal, Canada.

Charmeuse is primarily a perfume container but it is also an atomizer. Unlike the usual ones it is not caused to operate by means of mechanical action, but by that of the dissolved gas contained in it, which maintains an adequate and permanent pressure, to eject, and atomize the perfume into a fine stream as it comes out of the container.

Gay Manhattan is the name of a new fragrance introduced by Daggett & Ramsdell. It comes in a scientifically sealed, golden metal sphere which is perfume bottle and atomizer all in one.

Esme of Paris has a little snow man that holds a one dram bottle of Green Eyes, A May Morning or On Fifth Avenue, and making an interesting gift item.

Hattie Carnegie has added four new items plus a metal lipstick case to her line of beauty appointments—bath oil, talcum powder, eye shadow and Masque—all attractively packaged in Carnegie fashion.

how tight

is a clam?

The clam can seal itself off from the outside world quite completely when it really has its heart in it. But we shudder at the thought of its facing the tests we impose on the seams of each National can.

For nearly half a century our engineers have worked towards perfecting can seams — side, top and bottom. Today this work is paying off in the quality of National cans.

This is just one of many ways in which our laboratories are doing something tangible to protect your product.

NATIONAL CAN CORPORATION

EXECUTIVE OFFICES: 110 EAST 42nd STREET, NEW YORK 17, N. Y.

Sales Offices and Plants: Baltimore, Md. • Chicago, Ill. • Hamilton, Ohio • Boston, Mass. Detroit, Michigan • Indianapolis, Ind. • Maspeth, New York • McKeesport, Pa. • St. Louis, Mo.

For maximum repeat sales you need quality here, too

Unless you use a top-quality cork, all the skill and care lavished on your package design and contents may be lost on your customers.

Only when you use a top-grade cork can you be sure your product is safely sealed, the contents protected against leakage and deterioration. What's more, a top-quality cork, one that comes out easily, creates a first impression of quality that helps customers decide to ask for your brand again—brings in repeat sales.

You can be sure of getting corks that sell, as well as seal, when you buy them from Armstrong. Our 86 years of leadership in the corks field is your guarantee of receiving top-quality corks, skillfully cut from the finest corkwood, accurately and honestly graded. It will pay you to order your corks from Armstrong.

For information about Armstrong's Corks—straight, tapered, shell, flange, or Embossed-Top—or any of the many other Armstrong Closures, get in touch with your nearest Armstrong representative. Or write to the Armstrong Cork Company, Glass and Closure Division, 3811 Prince Street, Lancaster, Pa.

For favorable "first impressions"

ARMSTRONG'S CORKS and CAPS

TOQUILLAS **THE FINEST IN STRAWS**

When it comes to fine straw hats, genuine Panamas, or "Toquillas" as they are called, are way out in front. Manufactured principally in Ecuador and Colombia, these hats are so named because for many years the focal point in their distribution has been Panama. Panama hats are made of finely divided shreds of unopened screw pine leaves, which are woven by hand on blocks. Those of the highest quality possess the texture of fine linen, and require months to complete. Produced for over 300 years, the genuine Panama is recognized throughout the world for its exceptional quality and craftsmanship.

The commercial glass manufactured by Carr-Lowrey has in its own field earned wide recognition. For over 57 years, Carr-Lowrey has produced glass containers to the most exacting standards. No wonder, then, that so many quality minded buyers of commercial glass continue to specify Carr-Lowrey.

CARR-LOWREY GLASS CO.

Factory & Main Office: Baltimore 3, Md. • *New York Office:* 500 Fifth Ave. (18) • *Chicago Office:* 1502 Merchandise Mart (54)

LIBRARY

The Tale of a SALE

When Annabelle Smith goes
out to buy
There's cash in her purse,
a gleam in her eye.

She shops (surveys show)
with an open mind
Knowing *what* she wants,
but not *what kind.**

The appearance of things
that catch her eye
Often determines
what brand she'll buy.

So there... in the store,
Mr. Product Seller,
If your product's good,
let your package tell her!

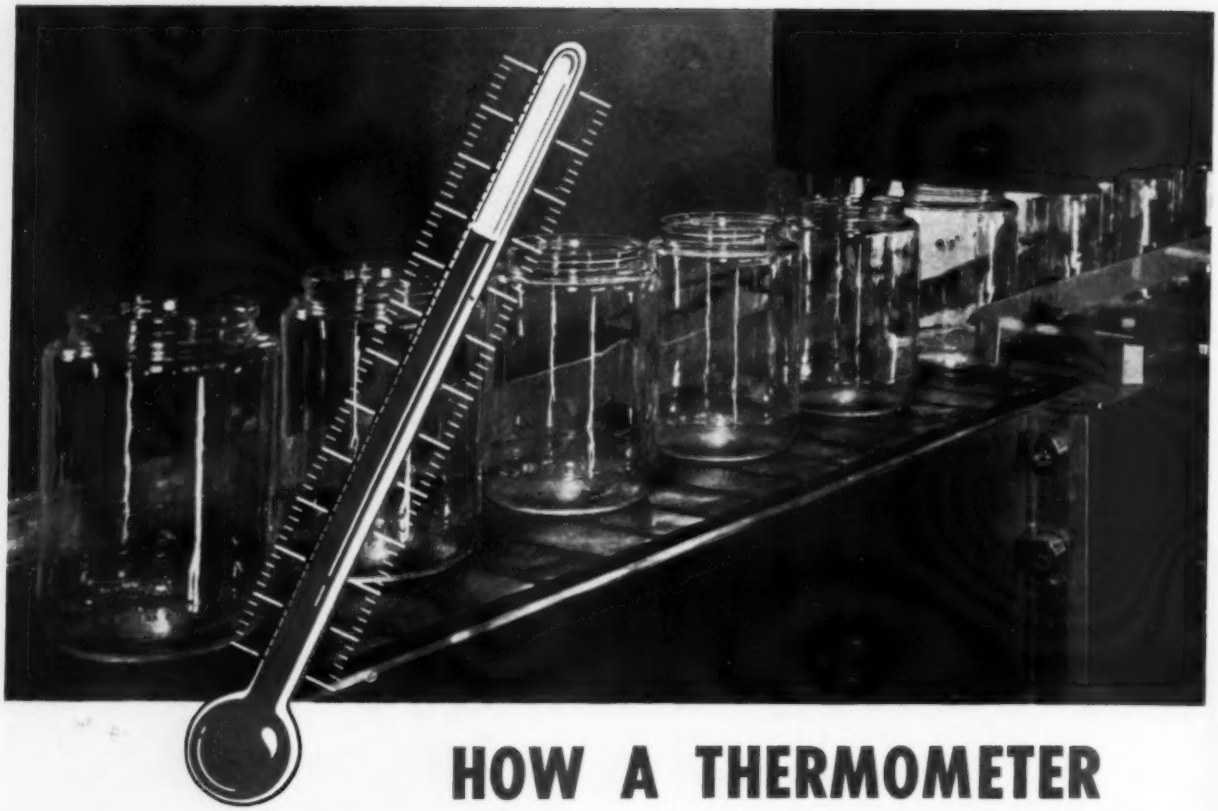
*National surveys have shown that women—who buy ¾ of all goods sold at retail—also make ¾ of their buying decisions at the point-of-sale—making selections, *on impulse,* from articles they SEE! Hence *the appearance of your package* is a vital selling factor. *Never underestimate the power of the package.* If your package attracts the eye, arouses interest—and makes a better impression of *quality within* than others—it will WIN SALES.

LET RITCHIE WORK WITH YOU to develop a better package at low unit cost. One that will instantly identify, fully protect and conveniently dispense your product—practical—production-planned—easy to fill or pack—to handle, to stack and display—but *above all* designed for eye-appeal, for quality impression—a package that sells!

Never Underestimate the Power of the Package!

W.C. Ritchie and COMPANY
8235 Baltimore Avenue • Chicago 17
★ SET-UP PAPER BOXES
★ FIBRE CANS
★ TRANSPARENT PACKAGES

NEW YORK • DETROIT • LOS ANGELES • ST. LOUIS • MINNEAPOLIS • MILWAUKEE • ATLANTA • NEW ORLEANS • DENVER • PORTLAND • SEATTLE • MIAMI



HOW A THERMOMETER SOLVED A GLASS PROBLEM

Why should a bottle and closure which had been performing satisfactorily on the filling line for six months suddenly start giving trouble?

This was the problem faced by one of Armstrong's customers when a heretofore satisfactory package unexpectedly developed heavy "leakers" and breakage. When study failed to find the cause, Armstrong was asked to re-check the glass container and closure. Both were found to be of the same high quality as the earlier production, which had performed perfectly.

An Armstrong technician re-checked the customer's filling line from start to finish, examined the equipment, found everything in apple-pie order. Puzzled, he asked several questions—then suddenly whipped out a pad and pencil, scribbled a few figures, and said, "If you'll put 2% less liquid in your glass containers, your troubles will end!" And they did!

The solution was simple. The bottles were filled in a room without heat. During the summer and fall, when the operation started, everything was all right. But in the winter, the cold liquid in the bottles expanded as it came into heated rooms and caused the leakers . . . until the proper head space was allowed for expansion.

Not every glass packaging problem is as simply solved as this one was. But whatever your problem, you're sure of the best in technical advice when you bring it to Armstrong. An unusually large staff of experts in Engineering, Production Design, Package Design, Traffic, and pure and applied science is constantly on the job to make sure you get the best possible glass and closure service.

For full information on any of Armstrong's glass or closures, call your Armstrong representative, or write direct to Armstrong Cork Co., Glass and Closure Div., 3811 Prince Street, Lancaster, Pa.

Famous Plastics

FOR FAMOUS MERCHANDISE.

CAMPUS COSMETICS are made by Colonial Dames, Incorporated. Attractive containers of beautiful Plaskon Molded Color are used to express the character and quality of this famous merchandise. ☆ Plaskon can express the personality of your product, too. Study the advantages listed below. No other packaging material can provide the utility, the beauty and sales appeal that Plaskon offers your drug products.

- Plaskon is impervious to the effects of alcohol, acetone or other common organic solvents.
- Plaskon is odorless, tasteless, inert.
- Plaskon is not affected by oils and fats.
- Plaskon is available in a wide range of permanent colors.
- Plaskon can be molded into distinctive designs and shapes.

Your molder, or experienced Plaskon men, will be glad to show how these advantages can be put to work for you.

PLASKON
TRADE MARK REGISTERED
MOLDED COLOR

PLASKON DIVISION • **LIBBEY-OWENS-FORD GLASS CO.** • 2110 Sylvan Ave. • Toledo 6, Ohio
Canadian Agent: Canadian Industries, Ltd., Montreal, P. Q.

DRESSED TO SELL

PRODUCTS PACKAGED IN LUSTEROID MEAN "CLEAR SELLING" AHEAD

Your sales job is made easier when your product is "clothed" in sparkling, crystal-clear LUSTEROID.

These modern plastic vials and tubes are actually small showcases that display your product while protecting it in transit, over the counter and in use.

Remarkably light in weight, LUSTEROID containers are strong, rigid and unbreakable. Their printability saves on labeling. Their wide variety of colors—clear or opaque—make them a most effective merchandising medium.

LUSTEROID comes in standard diameters of ¼" to 1¼" and lengths to 6" Cork, slip-on or screw-cap closures.

Write for full details today.

LUSTEROID CONTAINER CO., Inc.

Formerly Lusteroid Division of Sillcocks-Miller Company

Office and Factory

10 W. PARKER AVENUE, MAPLEWOOD, N. J.

MAILING ADDRESS: SOUTH ORANGE, N. J.

CUSTOM MADE

Accurately to Your Specifications

● **REGULAR DROPPER . . . a standard quality dropper made to any desirable size using the best of materials and the finest workmanship. Completely assembled.**

● **CALIBRATED DROPPER . . . accurately made to any graduated scale to insure correct readings. Plastic Cap, Natural or Synthetic Rubber Bulb, No. 2 Clear Glass, Blunt End, Completely Assembled.**

● **SERUM DROPPER . . . can be made to hold any specific number of CC's desired. Expert workmanship assured in each dropper. Completely assembled.**

A Dropper to fit Your Every Need!

FOR SAMPLES AND QUOTATIONS WRITE TO

totus PHARMACEUTICAL LABORATORIES

PHILADELPHIA PENNSYLVANIA

Sparkle...

THAT WINS FRIENDS

—and influences people . . . . to buy your perfumes and cosmetics. Made of sparkling clear crystal glass, Foster-Forbes Cosmetic Bottles are designed to catch light rays and flash them at customers. Your products sparkle with life . . . . and your sales are healthy with added dollars.

FOSTER-FORBES GLASS COMPANY

MARION, INDIANA, U. S. A.

Sales Representatives

ST. LOUIS • NEW YORK • CINCINNATI • DETROIT • CHICAGO • CLEVELAND • ST. PAUL
MILWAUKEE • ATLANTA • KANSAS CITY • MEMPHIS • LOUISVILLE • HAVANA, CUBA

For Over 40 Years

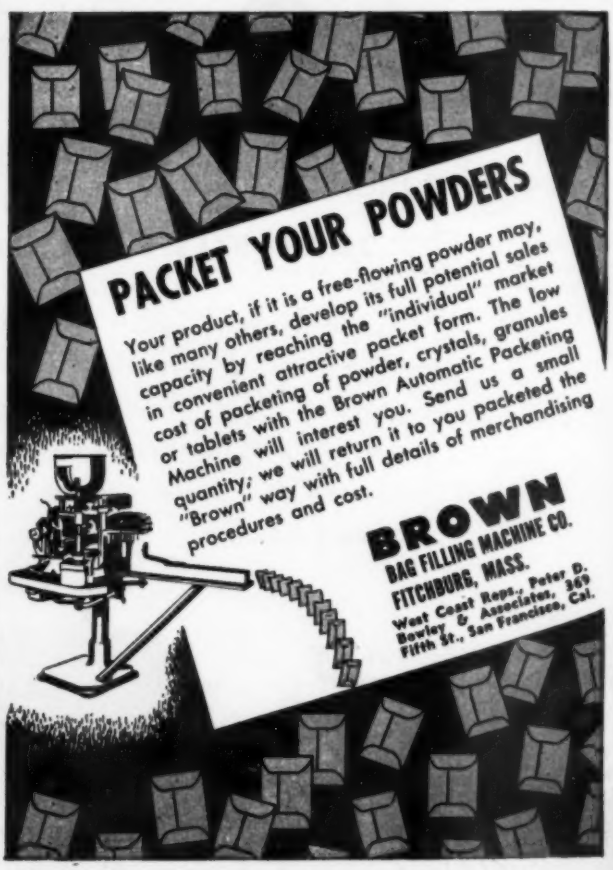
– the standard in quality tubes

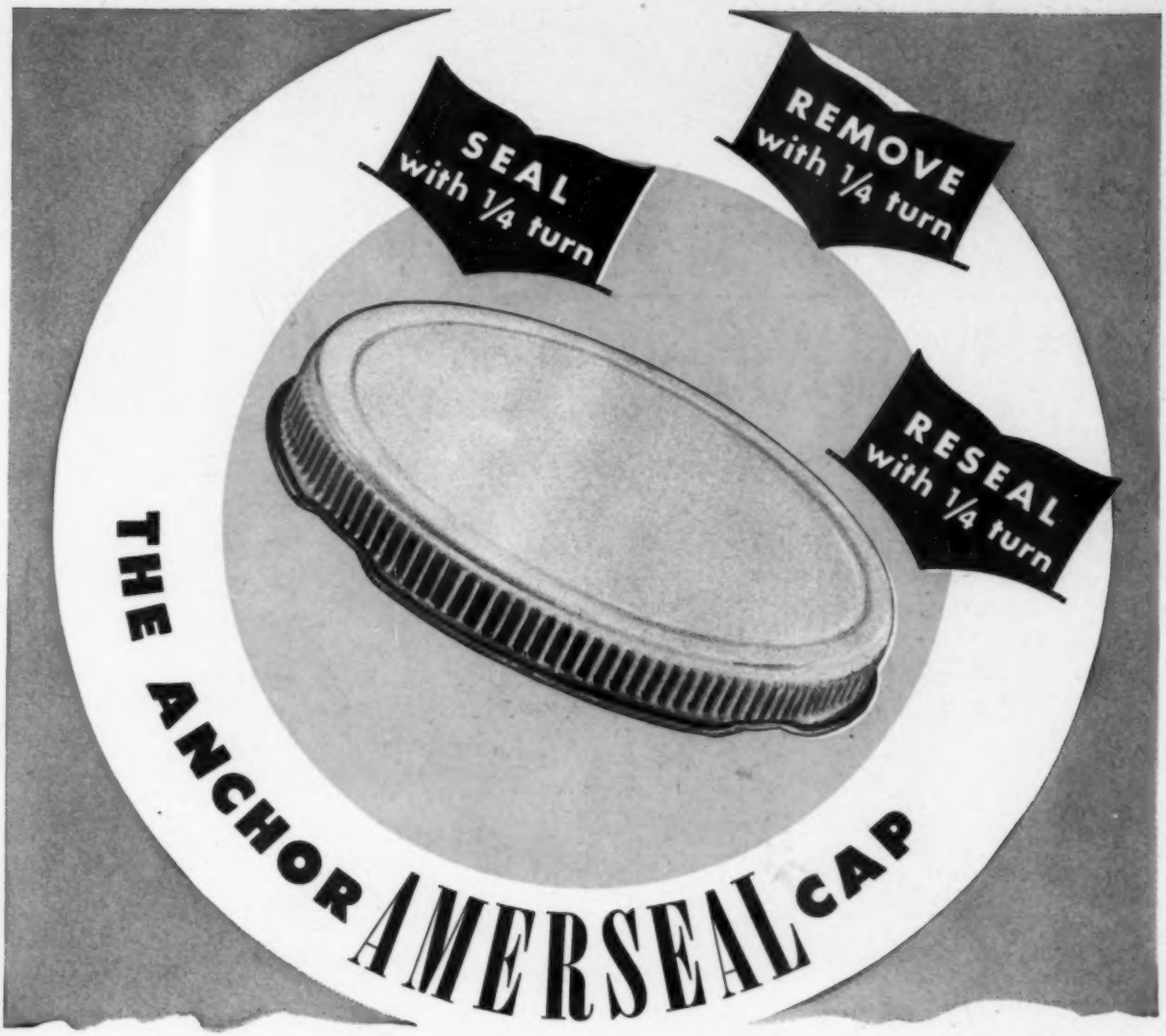
7

Standard
SPECIALTY & TUBE CO.
New Brighton, Pa.

....LAST WORD IN "ON THE PACKAGE" PRINTING SENDS HELENA RUBINSTEIN'S "HEAVEN SENT" OUT INTO THE WORLD SELF-ASSURED AND LOVELY IN ITS PERFECTION.

SILK SCREEN PRINTERS TO THE COSMETIC FIELD
CREATIVE PRINTMAKERS, INC.
200 VARICK STREET, NEW YORK 14 • WALKER 5-6300


PACKET YOUR POWDERS
Your product, if it is a free-flowing powder may, like many others, develop its full potential sales capacity by reaching the "individual" market in convenient attractive packet form. The low cost of packeting of powder, crystals, granules or tablets with the Brown Automatic Packeting Machine will interest you. Send us a small quantity; we will return it to you packeted the "Brown" way with full details of merchandising procedures and cost.
BROWN
BAG FILLING MACHINE CO.
FITCHBURG, MASS.
West Coast Reps., Peter D. Bowley & Associates, 369 Fifth St., San Francisco, Cal.



START the Anchor Amerseal Cap at any point on the container finish. Give it a simple ¼ turn—and the container is sealed. A quarter turn in the opposite direction and the cap is removed.

The unique manner in which the Amerseal Cap makes complete contact with the top edge of the container finish accounts for its sealing effectiveness. Its specially formed and equally spaced lugs engage the underside of the glass threads, draw the cap down and compress the liner in an even, airtight contact with the container finish.

It provides effective sealing, easy removal and reseal for all products requiring an airtight, liquid-tight seal that are not subject to bacterial decomposition. This includes adhesive, oily, volatile and effervescent products, as well as the more usual types.

Tune in "Crime Photographer" every Thursday evening, entire Coast-to-Coast Network, CBS.

Anchor
CONTAINERS and CAPS

PRODUCTS OF
ANCHOR HOCKING GLASS CORPORATION
LANCASTER, OHIO

It's that eye-catching quality

WHICH MAKES MORE HANDS REACH FOR CARTONS OF COATED LITHWITE*

This revolutionary clay-coated paperboard, plus Gardner-Richardson carton craftsmanship, means *stand-out* packages on the shelf

MANY LEADING MERCHANDISERS found just what they'd been looking for when Gardner-Richardson introduced *Coated* Lithwite seven years ago — a *practical way to up-grade their packages.* And since then, billions of smart, crisp cartons made of this revolutionary *clay-coated* board have been produced by the exacting craftsmen in Gardner-Richardson's plants.

Gardner-Richardson alone makes *Coated* Lithwite. Proved and improved for seven years, this whiter, brighter board comes from the machine with a super-smooth *clay-coated* surface ready for printing. It holds colors brilliantly, has exceptional folding, bending, scoring qualities . . . takes a tight seal. Cartons of *Coated* Lithwite are the answer to the mass-merchandiser who wants quality-appeal in his package.

Production of cartons of *Coated* Lithwite is currently sold up. But a project to increase production to help meet the tremendous demand is now under way.

Cartons of Coated Lithwite

THE GARDNER-RICHARDSON CO. • Manufacturers of Folding Cartons and Boxboard • Middletown, Ohio

*Reg. U. S. Pat. Off.

Sales Representatives in BOSTON . CHICAGO . DETROIT . NEW YORK . PHILADELPHIA . PITTSBURGH . ST. LOUIS

Dressed Right

Sealed Tight with a

DODGE MILBOSSED-TOP CORK

THESE two kissing deer mean just one thing to countless numbers of retailers and consumers —Vivaudou's Djer-Kiss. One important factor in the success of this popular Djer-Kiss Sachet is the attractive styling of the package. It's really dressed to sell. See how clearly the figures and name stand out on the skillfully embossed Dodge Milbossed-Top Cork.

Distinctive and colorful, these Dodge closures are easily removed from a bottle and easily replaced. Made of high-grade natural cork and sturdy hardwood tops, they always assure a perfect air-tight seal. That is why a Dodge Milbossed-Top Cork is Vivaudou's choice to keep this perfumed powder dry and preserve the fragrance of the contents.

Your product, too, can gain individuality and sales appeal with an eye-catching closure. Put your name where it will be seen . . . right on top of a Dodge Milbossed-Top Cork—available in a broad range of sizes, colors and designs. Send us your specifications.

DODGE CORK CO., INC. • LANCASTER, PA.

DODGE CORK CLOSURES

designed to Guard the Integrity of the Contents

FEATURED CHEMICALS in the PFIZER FAMILY

- Ammonium Oxalate
- Ascorbic Acid
- Bi-Cap Flour Enrichment Mixtures
- Bismuth Preparations
- Calcium Gluconate
- Citric Acid
- Citrate Esters
- Cream Tartar
- Fumaric Acid
- Gluconic Acid
- Glucono Delta Lactone
- Iron and Ammonium Citrates
- Iron and Ammonium Oxalate
- Iron Gluconate
- Iron Oxalate
- Itaconic Acid
- Niacin
- Niacinamide
- Oxalates
- Penicillin
- Potassium Iodide
- Potassium Oxalate
- Riboflavin
- Rochelle Salt
- Sodium Citrate
- Sodium Gluconate
- Tartaric Acid
- Thiamine

—and many other chemicals

no. 6 in a series:

MAJOR VITAMINS

C B_1 B_2

Among other products, Chas. Pfizer & Co., Inc. specializes in the production of a number of major vitamins. These are vitamins whose values and benefits have been most firmly established. The Pfizer list includes Vitamin C or ascorbic acid, Vitamin B_1 or thiamin, Vitamin B_2 or riboflavin, and a closely-related pair, niacin (nicotinic acid) and niacinamide (nicotinic acid amide.)

Whether these products serve as pharmaceuticals, flour enrichers or as poultry feed ingredients, the name Pfizer connotes the utmost in control of quality, the maximum in careful output as watched over by a highly trained staff which numbers among its members chemists, engineers and other technical personnel. Chas. Pfizer & Co., Inc., 81 Maiden Lane, New York 7, N. Y.; 444 West Grand Ave., Chicago 10, Illinois; 605 Third Street, San Francisco 7, Cal.

PFIZER

Manufacturing Chemists Since 1849

NEWS...

Dr. Hazelton Opens Pharmacological Lab.

Dr. Lloyd W. Hazelton, 1946 Ebert Prize winner, has opened a pharmacological laboratory devoted to industrial research and consulting. The new research unit will be located in suburban

DR. LLOYD HAZELTON

Washington, D. C. near Falls Church, Va..

"A principal objective of this laboratory is the development of pharmacological background for compliance with regulations of Federal agencies," declared Dr. Hazelton.

Dr. Hazelton specialized in industrial pharmacological research for six years while he was associate professor at George Washington University. Prior to that he served as instructor at Georgetown University Medical School. His graduate work was done at the University of Washington in Seattle.

Thomasset Colors, Inc. Announced

A company concentrating exclusively on the cosmetic field, Thomasset Colors, Inc., has been formed by P. A. Thomasset to manufacture organic lakes and purified iron oxide colors. The factory is located at 338 Wilson Ave., Newark, N. J. All sales will be made through Whittaker, Clark & Daniels of 260 West Broadway, New York.

Mr. Thomasset has been affiliated with the color field for the past twenty-two years and is recognized as one of the foremost authorities in the country on organic colors.

Vallee Honored on Retirement

With the completion of 36 years service with Roger & Gallett, Paul F. Vallee was honored recently at a banquet given by his friends in the industry.

The dinner which also marked his retirement from business was a fitting testimonial to his long service in the perfume field. Guy Rocherolle, president of Roger & Gallett, presided and voiced the sentiments of all when he outlined Mr. Vallee's career and the valuable contributions he had made to the industry.

Born in Quebec, Mr. Vallee was educated there and then went to Montreal, then came to New York in 1904, where he studied foreign exchange for three years. He then joined Park & Tilford in the foreign department where he first made contact with Roger & Gallett, Paris, his job was to establish cost prices of their merchandise in this country.

When Roger & Gallett decided in 1910 to form their own company in the United States, appreciating his capabilities and knowledge he was one of the first to be asked to join the new-born organization.

Through the years, Mr. Vallee had first been appointed assistant treasurer, then in 1939 he was named vice president, later he was made president of Concentrate Manufacturing Corp.

It is not only in the industry he has made friends. All his life he was interested in promoting good-will between Canada, France and the United States. He was one of the foremost representatives of French culture in New York, and in 1933 in recognition of his devotion and constant work in the French cause he was decorated by the French Government with the "Academic Palms."

Among the Canadian Colony he held a position of respect. From 1929 to 1931 he was president of the Societe St. Jean Baptiste, and in 1940 he was elected vice president of the Canadian Club.

Paul Vallee (left) shown with Guy Rocherolle at the dinner given on his retirement from Roger & Gallett.

Dr. Ellegood Elected Director

Sharp & Dohme Inc., have announced the promotion of Dr. John A. Ellegood

DR. JOHN ELLEGOOD

to the position of director of Pharmaceutical Control, succeeding Dr. Russell A. Cain who has resigned.

A graduate of the University of Washington, Dr. Ellegood served as chemist for the state of Washington from 1938 to 1941 and as professor of Pharmaceutical and Analytical Chemistry at Oregon State University from 1941 to 1942.

Coming to Sharp & Dohme in 1942 as assistant director of Pharmaceutical Control, he served in that capacity until his present appointment.

Chiris Appoints De Lamar in Chicago

F. E. Shoninger, president of Antoine Chiris Co., Inc., has returned from a visit to Chicago during which he appointed the firm of J. H. De Lamar & Son as Chiris representatives in that city and the middle west.

The house of De Lamar represented Chiris before the war. In view of the increasingly large deliveries of French raw materials which Chiris is receiving from abroad coupled with the considerable development and enlargement of their New York laboratories, they have decided to renew their sales activities in the middle West through the De Lamar appointment.

Von Hofe Heads Packaging Mchy. Inst.

George W. Von Hofe, president, New Jersey Machine Mfg. Corp., Hoboken, N. J., was elected president of the Packaging Machinery Institute, at the Institute's annual meeting.

GEORGE VON HOFE

Vice presidents named were Boyd H. Redner, general manager, Battle Creek Brand Wrapping Machine Co., and Oscar W. Wilstrom, president, U. S. Automatic Box Machinery Co.

Mr. Von Hofe succeeds Frank B. Fairbanks, president, Horix Mfg., Co., Pittsburgh, who has served as the Institute's president for two years.

Directors elected by the membership were: John P. Corley, vice president, Miller Wrapping & Sealing Machine Co.; E. G. Kuhn, president, Consolidated Packaging Machinery Corp.; and Carl E. Schaeffer, sales manager, Stokes & Smith Co.

Klotz Retires from Hinde & Dauch

Peter G. Klotz, vice president in charge of factory operations for Hinde & Dauch Co., Sandusky, Ohio, has retired after fifty years of continuous service.

Howard Golden, associated with the firm since 1909, has been promoted to general superintendent of factories, and Delbert C. Valentine, who joined the organization in 1930, has been named director of industrial relations.

Abbott Adds Scientists

Three appointments to the scientific staff of Abbott Laboratories are made known by Dr. Robert D. Coghill, director of research.

Dr. R. B. Hasbrouck comes to Abbott as an organic research chemist. Dr. Hasbrouck received his Ph.D. at Cornell University where he had an Abbott fellowship.

Dr. N. P. Watts, a research associate at New York University College of Medicine since 1944, joined the Abbott pharmacology staff. She is a member of the American Pharmaceutical Assn.

Dr. R. W. Rivett, who has recently received his Ph.D. in biochemistry at the University of Wisconsin, is now engaged in fermentation research at Abbott.

Packaging Exposition April 8 in Phila.

The American Management Assn., will hold its 16th Packaging Exposition in Convention Hall, Philadelphia, April 8 to 11, 1947. The method of allocating exhibit space in the show is by length of time the companies have exhibited at the show.

Statler Appointed by National Can

David C. Statler has been appointed district sales manager for National Can's St. Louis, territory.

DAVID C. STATLER

A graduate of Cornell University and a veteran of World War I, Mr. Statler has been prominent in the canning field for many years.

Merck Export Organization

George W. Merck, president of Merck & Co., Inc., N. J. announced that its export operations will be conducted solely through the newly organized P.W.R. Export Corp., with headquarters at 161 Avenue of the Americas, New York.

Consolidating export sales formerly made through Merck & Co., Inc., in the Caribbean area and through its subsidiary, Powers-Weightman-Rosengarten Corp., in the rest of the world, the new organization will seek expanded sales of Merck products. The officers of the P. W. R. Corp., are George W. Merck, president; James J. Kerrigan, vice president; Franz Euler, vice president; Carl M. Anderson, secretary; Walter G. Suffern, treasurer; and William C. Duckham and Edward J. Flanagan, assistant secretaries.

Pitman-Moore Opens Dallas Branch

A new branch has been opened in Dallas, by the Pitman-Moore Co., division of Allied Labs., Inc. The new branch is located at 2908 Canton St., Dallas and was instituted for a more extensive service for pharmacists and physicians of the southwest, serving the states of Texas, Oklahoma, Arkansas and Louisiana.

An augmented force of field representatives chosen for their familiarity with the southwest, as well as their pharmaceutical knowledge, is operating under the supervision of L. W. (Larry) Welch, recently promoted to the position of manager of the Southwestern region.

Schubert & Witkin, Inc. Formed

Joseph B. Schubert, formerly sales manager for the House of Westmore, has formed the firm of Schubert & Witkin, Inc., 296 Broadway, N. Y., in partnership with Leonard Witkin, Westmore's former mid-west district manager. The new firm has been appointed sole distributors for "Oilex," new non-smearing nail polish remover.

Ruhoff Rejoins Mallinckrodt

John R. Ruhoff, formerly Colonel, Corps of Engineers, U. S. Army, has rejoined the staff of Mallinckrodt Chemical Works, St. Louis, as technical director. Dr. Ruhoff was awarded the Legion of Merit for his work with the Mahattan District in connection with the development of the atomic bomb. Previous to his four years in the army, he had initiated work on ultra pure uranium compounds at Mallinckrodt, where he was in charge of inorganic research from 1937 to 1942.

DR. JOHN RUHOFF

Three "musts" in the making of a cough medicine!

- *fine chemicals of measured purity*
- *your technical skill in manufacturing*
- *rigid laboratory control in your plant*

Every year, millions of bottles of cough medicines are used by the American people — to soothe irritated throats and to relieve coughs.

Leading pharmaceutical manufacturers of cough medicines exercise extraordinary care in making these products, so that they may be not only efficacious but palatable as well.

And in that making, there are three vitally important "musts":

— selection of the most uniform fine chemicals, which are important ingredients in a cough medicine.

— scientific compounding and processing of all the ingredients to achieve a quality finished product.

— rigid laboratory control, including testing of all raw materials, and constant testing of the manufactured product itself.

The first of these "musts" is of great importance to manufacturers of cough medicines.

Choosing fine chemicals with purity to the decimal, makes the manufacturer's job easier all the way. When you specify any Baker fine chemical, you specify quality *at the beginning* and you get it. Both your compounding and your laboratory control are simplified. You have quality insurance for your products.

For more than 40 years, the J. T. Baker Chemical Co. has built its chemical business on measured purity. That is why leading pharmaceutical and drug companies choose Baker as a source of supply. They know that Baker's "purity by the ton" in fine chemicals is the result of unique control methods and ceaseless testing.

J. T. Baker Chemical Co., *Executive Offices and Plant:* Phillipsburg, N. J.; *Branch Offices:* New York, Philadelphia and Chicago

Baker's
FINE CHEMICALS

FOR CERTAINTY IN CHEMICAL CONTROL

. . . *Rely on* B&A *Reagents*

Chemical control has become indispensable to modern process industries all the way from acceptance of raw materials on through to certification of finished products. In industrial laboratories America over, the control chemist, working with the precision tools of his profession, safeguards product quality and uniformity . . . helps obtain production economies and efficiency.

For certainty in such responsible work, depend on B&A Reagents.

These high purity products of General Chemical Company's Baker & Adamson Division are chemical micrometers for your most exacting analyses. They are made to the decimal-point accuracy of A.C.S. standards . . . and are backed by all the specialized skills and science B&A has developed in 64 years of "setting the pace in chemical purity." **Extensive stocks** of B&A Reagents are carried at the Company's *own* chain of regional warehouses from coast to coast.* Use the one nearest you to fill your reagent needs. By telling the B&A Technical Serviceman your month-to-month requirements he can plan with you in building these local stocks to supply you quickly . . . conveniently . . . whenever you call.

Do you have this 200-page catalog?

If you buy or specify industrial laboratory reagents, you will find the 200-page book of B&A products an invaluable guide to 1,000 quality chemicals. *For free copy,* make request on business letterhead to nearest B&A office below.

REAGENTS
B&A
STANDARD OF PURITY
FINE CHEMICALS

GENERAL CHEMICAL COMPANY

BAKER & ADAMSON DIVISION

40 RECTOR STREET, NEW YORK 6, N. Y.

Sales and Technical Service Offices: Albany* • Atlanta • Baltimore • Birmingham* • Boston • Bridgeport Buffalo* • Charlotte* • Chicago* • Cleveland* • Denver • Detroit* • Houston • Kansas City Los Angeles* • Minneapolis • New York* • Philadelphia* • Pittsburgh* • Providence • St. Louis* San Francisco* • Seattle • Wenatchee (Wash.) • Yakima (Wash.)
In Wisconsin: General Chemical Wisconsin Corporation, Milwaukee, Wis.
In Canada: The Nichols Chemical Company, Limited • Montreal* • Toronto* • Vancouver*

SETTING THE PACE IN CHEMICAL PURITY SINCE 1882

* Complete stocks carried here.

Malmstrom Appoints Goode in Chicago

Steven T. Goode has been appointed general manager of the Chicago office of N. I. Malmstrom & Co., New York. He

STEVEN GOODE

began his career with the company as a control chemist after which he joined the sales department, first in New York area and later in Chicago.

Before being placed on inactive duty in June 1945, he had flown 50 missions over Europe as pilot and was decorated ten times. He attained the rank of First Lieutenant while in service.

A graduate of St. Johns University, Mr. Goode is a member of the Chicago Drug & Chemical Assn.

J. T. Baker Appoints Scientists

Ralph A. Clark, vice president of J. T. Baker Chemical Co., has made known the names of chemists recently selected as members of the Organic Research department.

Dr. Jerry C. Cavagnol, previously at Johns Hopkins University working on a NDRC project for the Navy. Dr. Nelson Easton, formerly at the University of Illinois on the CMR antimalarial research program. Greydon Kay, who had been doing research and pilot plant work at the Prest-O-Lite Co., Inc., at Indianapolis. Leroy Meckley, who has been doing work on synthetic rubber at the Phillips Petroleum Co. at Phillips, Texas. Walter J. Thome, previously with the Scullin Steel Co., St. Louis. Dr. J. Benjamin Ziegler, formerly at the University of Illinois, working on the WPB synthetic rubber program. Stanley W. Sibbald, who was superintendent of the Styrene Plant at Sarnia, Ontario. John Bratt, who was doing engineering work on the atomic bomb program. George Gross, formerly with the Chemical Warfare service. Francis Dole, previously a chemical engineer doing pilot plant work for T. V. A. at the Wilson Dam in Alabama.

Evans Research and Development Corp.

Dr. Ralph L. Evans, head of the well known chemical consulting firm, Evans Associates, New York, has formed a new company, Evans Research and Development Corp.

Consulting activities relating to applied research and commercial development, formerly handled by Evans Associates will be conducted by the new company.

The technical staff of the new organization is being formed from the chemists and technicians of Evans Associates, augmented by scientists experienced in many fields. Laboratory facilities are being expanded proportionately.

Officers of Evans Research and Development Corp. are; President, Dr. Ralph L. Evans; vice president, Dr. Everett G. McDonough; secretary and treasurer, James Lawrie.

Dr. Eric J. Hewitt will be administrator of the laboratories and director of research; Carleton Sawyer and Edwin C. Kenton, technical liaison; S. F. Coneybear, development manager.

Lambert Appoints Morrill

John S. Norton, executive vice president of the Lambert Pharmacal Co., has announced that Stanwood Morrill, formerly an executive assistant, has been made director of advertising and merchandising.

Hogan Joins S. B. Penick

Walter J. Hogan, for many years a sales representative in the essential oils field, has joined the New York sales staff of S. B. Penick & Co.

Name Assistant to Knox Glass President

R. R. Underwood, president of the Knox Group of glass manufacturing companies, has announced the appoint-

GEORGE UNDERWOOD

ment of George B. Underwood as assistant to the president.

The younger Mr. Underwood became affiliated with Knox in 1936 as statistician. Some two years later he was named assistant traffic manager, and late in 1939 was transferred to the sales div., in the central office.

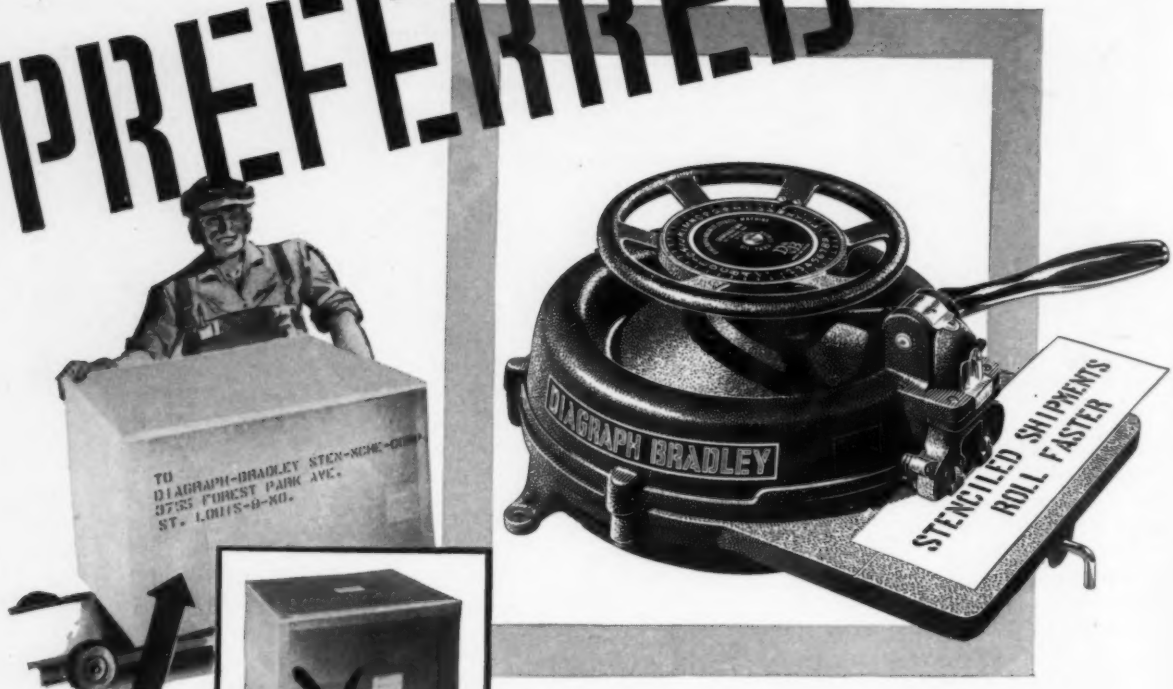
Prior to his induction into the armed forces, G. B. Underwood served in the capacity of divisional sales head, miscellaneous sales department of the Knox Glass Associates, Inc. He was recently discharged after serving for two years in the Infantry, his last station being with the occapational forces in Japan.

Hirestra Labs. Moves Offices

Hirestra Labs., Inc., have moved to new and enlarged quarters at 487 Park Ave., New York.

Board of directors of the Chicago Perfumery Soap and Extract Assn. making plans for the organizations Christmas party; First Row (L. to R.) Harley B. Hobbs, Fred A. Degener, Wm. F. Kammerer, Walter R. Nay, Stanley M. Lind, Carl W. Edwards, James L. Johnson, Joseph A. Gauer. Second Row: R. F. McClellan, Charles E. Arch, George H. Stanton, George Barr, James T. Leavitt.

PREFERRED



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DIAGRAPH-BRADLEY
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THE WORLD'S OLDEST AND LARGEST MANUFACTURER OF STENCIL CUTTING MACHINES

Complete Shipping Room Supplies

Schrieffer Directs A. D. S.

John H. Schrieffer, has been elected vice president, general manager and a director of the American Druggists' Syndicate, Inc. He was previously vice president and sales director for V. Vivaudou subsidiary of Universal Laboratories. Karl F. Milde has been appointed treasurer of ADS.

Dental Market Brochure

A brochure issued by Dental Survey Publications entitled "70,000 More Doctors" with facts and figures in regard to the dental market from the angle of the pharmaceutical manufacturer is available to those interested. Write Dental Survey Publications, Essex Bldg., Minneapolis 2, Min.

Wunderly Rejoins J. T. Baker

G. B. Hafer, general sales manager of the J. T. Baker Chemical Co., announced that W. Glenn Wunderly is rejoining the company. He will represent Baker in California, Oregon and Washington. His office will be located at 953 S. Hope St., Los Angeles.

Moutet to Establish Branch Here

Jean P. Moutet, has arrived in this country for a visit of several weeks to acquaint himself with the trade and to meet the American representative of J. Henri Moutet, Grasse, France, Maurice S. Picard in regard to establishing an American branch.

Thomson Named by Ciba

The board of directors of Ciba Pharmaceutical Products, Inc., have appointed Clifton S. Thomson director

CLIFTON THOMSON

and general counsel. Mr. Thomson, a member of the firm of Appleton, Rice and Perrin, New York, is director of several corporations including United Dyewood Corp., of Belleville, N. J.

Klemmer Joins Modern Medicine

Modern Medicine Publications announces the appointment of Lee Klemmer to its staff, with headquarters in the New York office, 1 E. 42 St.

For many years Mr. Klemmer was associated with Topics Publishing Co., as manager of the Red Book from its inception and in addition, for the past four years, as manager of Drug Trade News and Food Field Reporter.

N. Y. Q. Adds Three Scientists

The New York Quinine & Chemical Works, Inc., has announced three additions to its research staff. Howard Bindell, formerly with S. B. Penick & Co.; Dr. Manuel Baizer, General Chemicals; and Dr. Oscar Gawron, American Home Products.

Carbide & Carbon in Canada

Carbide and Carbon Chemicals Ltd.,

GEORGE D. GARRETT

Toronto, is now handling the marketing in the Dominion of Canada of the synthetic organic chemicals produced by Carbide and Carbon Chemicals Corp. A new sales office was opened at 159 Bay St., Toronto, and George D. Garrett, Jr., has been appointed sales manager.

Cosmetic Exports to Norway

Torjus Hanssen, Dronningensgt. 23, Oslo, Norway, is interested in securing agencies of American cosmetic firms and producers of toiletries of all kinds.

Honduras Merchant Here

Elias S. Canahuati, a wholesale-retail handler of general merchandise at San Pedro Sula, Honduras, has arrived in the United States for a three-month visit. He is interested in acting as agency for cosmetic lines. His address while in NewYork is the Hotel McAlpin.

Durrer on Givaudan Board

Ernest R. Durrer was elected executive vice-president and a member of the board of directors of Givaudan-Delawanna, Inc., and Burton T. Bush, Inc.

ERNEST DURRER

Mr. Durrer is a native of Switzerland and has been associated with the Givaudan organization for many years. Prior to 1934 he lived in the United States, and traveled extensively on behalf of Givaudan & Cie., S. A., particularly in the Far East. At the outbreak of the war, Mr. Durrer returned to this country, with several associates from Geneva, to organize and direct the newly formed Givaudan-Foreign Inc., of which he became the vice-president. This organization assumed the important and difficult task of coordinating the Givaudan exports under trying wartime conditions and keeping the Givaudan name in overseas markets.

In joining the board, Mr. Durrer becomes the fourth member to be added this year. Other members are Xavier Givaudan and Andre Givaudan, both of Geneva; Dr. Eric C. Kunz, president of the company; Francis N. Bangs, vice-president and corporation's counsel; Harold F. Duffy, treasurer; Ralph M. Stevenson, sales manager; Dr. Max Luthy, plant manager.

Wyeth Advances Hough

J. S. Hough, formerly divisional sales manager of Wyeth International Ltd., has been appointed ethical promotion manager of John Wyeth & Brother, Durban, South Africa, according to an announcement made by Donald C. Townley, vice-president of American Home Products Corp., in charge of its foreign and export division.

Prior to his post with Wyeth International Ltd., Mr. Hough was for many years associated with Ayerst, McKenna and Harrison Ltd., a subsidiary of American Home Products Corp.

Increased Biological Rubber Goods

A new plant that greatly increases its facilities for manufacturing biological and pharmaceutical rubber products, and which will put an estimated 250

GEO. W. WALKER

additional people to work, has just been purchased and put into operation at Elkton, Md., by the Plastic Assembled Products Co., of Baltimore.

The new project represents the most ambitious expansion program on the history of the Baltimore firm, according to George W. Walker, president.

Edith Steiger Joins Corday

Edith Steiger, formerly associated with Revlon Products Corp., and Bonwit Teller, Inc., New York, has been appointed advertising and publicity director of Parfums Corday, Inc.

Hoyer—John Powell Export V. P.

David G. Hoyer has been named a vice president of the John Powell Export Corp., it was announced by John

DAVID G. HOYER

Powell, president of the company.

Mr. Hoyer, who has been assistant to the export manager since his release from the Navy a year ago, was purchasing agent for the Powell company before the war.

Wyeth Advancements

H. S. Howard, president of Wyeth Inc., has made known the following new executive appointments.

Herbert W. Blades has been elected executive vice president and is appointed chief operating executive under the president.

Stuart V. Smith elected vice president in charge of sales, and will continue to direct all sales and promotional activities.

Russell A. Beeson named vice president in charge of the Nutritional division.

Alfred Barol appointed vice president and technical director.

John D. Cash elected assistant vice president. He is the manager of the Biological division, and assists Frank F. Law in the esxecutive management of the Wyeth Pharmaceutical Labs., in both Chicago and Philadelphia.

McCormack Joins S. B. Penick

Francis X. McCormack has been appointed to the sales staff of S. B. Penick & Co. Mr. McCormack was separated from the army with the rank of Captain after serving four and one-half years with the 84th Chemical Mortar Bn. He is a graduate of the Massachusetts College of Pharmacy. Prior to entry into the armed forces he served for several years as sales representative in the pharmaceutical field.

Another appointment made by the company was that of Arnold M. Livingston as sales assistant in the Insecticide department. He is a graduate of Alfred University and has just returned from three and one-half years of service in the Navy.

Dr. Thompson Joins Roche-Organon

Dr. Kenneth Wade Thompson, formerly managing editor of the Journal of Clinical Endocrinology and clinical professor of Surgery at Tufts College Medical School, has joined Roche-Organon, Inc., as medical director.

McCarroll Joins United-Rexall

Arthur C. McCarroll has joined the United-Rexall Drug Co., as assistant to the public relations manager, Burns W. Lee.

Mr. McCarroll, a newspaperman for eight years and formerly a publicity writer for the Westinghouse Electric Corp., was discharged from the Marine Corps last February after two years service.

Piggott Named Grove Adv. Mgr.

Russell Vreeland, vice president of Grove Laboratories, Inc., St. Louis, has appointed Robert J. Piggott to the position of advertising manager. Mr. Pig-

ROBERT J. PIGGOTT

gott was selected because of his wide experience in the advertising and sales promotion of package product accounts, both as an advertising agency contact executive, research director and media specialist.

Bird Heads Pro-phy-lac-tic

William C. Bird has been elected president of Pro-phy-lac-tic Brush Co., succeeding John L. Johnson, who was chosen chairman of the board. Previously, Mr. Bird was executive president of the company.

Lynch Named V. P. of John Powell

David W. Lynch has been named a vice president of John Powell & Co., Inc., manufacturers of basic materials for the insecticide industry.

DAVID LYNCH

Mr. Lynch has headquarters at 350 N. Clark St., Chicago, he was formerly sales representative for the company in the Southwest and Middle West territories, and will continue to service the same areas for the Powell company.

ADVERTISEMENT—*This entire page is a paid advertisement* *Prepared Monthly by U. S. Industrial Chemicals, Inc.*

U.S.I. CHEMICAL NEWS

November ★ A Monthly Series for Chemists and Executives of the Solvents and Chemical Consuming Industries ★ 1946

The method of procuring natural resins in the Far East has remained unaltered for hundreds of years. Here, a native workman is tapping and collecting gum.

Protein Hydrolysates Aid Liver Necrosis Treatment

Protein hydrolysates containing methionine are successful in the treatment of acute necrosis of the liver according to a report published recently in a medical journal. One patient described as having been in a coma for 97 hours, is said to have shown no evidence of liver damage as early as three months after recovery. Methionine, one of the ten amino acids considered essentially for the growth and repair of animal tissue, is now synthesized by a U.S.I. process which cuts costs about 97 per cent.

First Post-War A.S.I. Show To Be Held in December

Newest developments in the automotive industry will be featured in the first post-war Automotive Service Industries Show to be held in the Atlantic City Auditorium from December 9th to 14th. Products of U.S.I. applicable to the automotive industry will be exhibited in booths 193 and 194. The Show is held under the auspices of the Motor and Equipment Manufacturers Association, the National Standard Parts Association, and the Motor and Equipment Wholesalers Association.

New Analgesic Discovered

A possible rival for aspirin may exist in its near-relative, salicylamide, according to investigations made recently by a New York research laboratory. The material, also known as o-hydroxybenzamide, is described as a tasteless, yellowish-white crystalline powder which has a quicker and deeper and more lasting effect than aspirin.

Imported Natural Resins Are Again Available for Protective Coatings

Reopened Primary Markets in the Far East Ship Damar, Batu, And East India Resins—Manilla Gum Expected Soon

The reopening of primary markets in the Far East have once again made many natural resins available as an additional source of raw materials for the protective coatings industry. Popular resins, such as Damar (Batavia and Singapore), Batu, and Black and Pale East India, have already begun to arrive in this country, and quantities of Manilla Gum (alcohol-soluble) are expected in the first part of 1947.

← It is welcome news, during these days of shortages, to announce the reopening of primary natural resin markets in the Far East. To bring readers of U.S.I. Chemical News up-to-date on this important development in the coatings industry, we are presenting this exclusive article. →

Other natural resins, which were available during the war, continue to enjoy wide popularity. Congo Gum, for example, has found new uses in many industries, where it is replacing other imported and manufactured raw materials. Kauri Gum consumption is expected to increase particularly since China Wood Oil has returned to the market. Red Gum (Accroides or Yacca) continues in good demand.

Prices Up in Primary Markets

World demand for natural resins, particularly from countries which have neither the raw materials nor the facilities for the production of synthetic resins, and the general tendency toward inflation abroad have combined to boost the costs of natural resins in the primary markets. Under the stress of great need and competitive bidding, some prewar resin prices have almost doubled. However, because of the increased production of synthetic resins in this country and the great variety of types now available, natural resins will have to find their level here based on the highly competitive synthetic resin market.

Refined Resins Available

Assuming that costs will level off to meet the competition of synthetics in the United States, users will still be faced with the fundamental disadvantage of processing or refining the imported raw resins. To overcome this handicap, which is unnecessary with syn-

(Continued on next page)

THE MONTH IN COATINGS

An asphalt-base paint, said to dry in an hour and to be an excellent heat-insulator, is marketed . . . A method is proposed for standardizing industrial finishes . . . Government sources announce expected imports of 25,000 tons of tung oil from China this year . . . The development of a new silicone paint that will afford lifetime finishes for automobiles, refrigerators, electric ranges and hospital equipment nears completion . . . A temporary protective coating for metal parts is announced . . . A surface analyzer is made available which checks surface finishes down to less than 1 microinch, according to the manufacturer . . . A non-drying film that is said to prevent overspray from sticking to dry walls of spray booths is announced . . . U.S. scientists discover an accelerated anti-leaching method for testing the basic quality of paints . . . A new-type coating composition for automobile refinishing is reported to prevent "bleed through" of maroons and reds . . . The spraying of metal powder or plastics through an oxy-propane flame is found useful in plating tank linings . . . Plans are under way to install the first full-scale process for the continuous manufacture of precipitated pigment colors.

Batavian Damar sorted by Javanese workers. Imports of natural resins from Java and other Far East markets are beginning to enter the U.S.A.

ADVERTISEMENT—*This entire page is a paid advertisement.*

November ★ **U.S.I. CHEMICAL NEWS** ★ 1946

Substitutes for Egg White, Whipped Cream Are Found

New synthetic products, designed to replace egg white and heavy cream, have recently been announced from foreign sources. The egg white replacement, said to have been used successfully for food and technical purposes, is described as having excellent food value. The whipped cream substitute, which is manufactured by means of a patented process, is reported to contain an edible vegetable flour, and a fatty base.

New "Resin Index"

The "Resin Index of 1946" has just been released. The booklet lists the name, producer, and basic properties of approximately 800 resins, broken down into 23 categories.

Feed Manufacturers Turn To Increased Vitamin B-G Use in Meat Shortage

With shortage of animal protein becoming serious because of decreased operations of the meat packing industry, feed manufacturers are faced with the substitution of greater quantities of vegetable protein to replace scarce animal protein. Nutritionists are recommending increased use of Vitamin B-G products to bring feeds carrying large quantities of vegetable protein to a high level of performance. The added riboflavin and other members of the vitamin B-G complex improve feed efficiency. U.S.I. is now offering a varied line of feed supplements and fortifiers, containing riboflavin and members of the vitamin B-G complex.

New Testosterone Process

A new commercial process for the preparation of testosterone from sarsaparilla root is under way, according to a recent announcement from Mexico. The process is not secret, and production costs are said to be favorable in comparison with other methods. Testosterone is one of the male hormones.

Natural Resins

(*Continued from preceding page*)

thetic resins, U.S.I. has instituted a comprehensive program to supply the consuming trade with refined gums. These gums retain all the desirable properties of the natural products, but are completely free from foreign matter and insolubles.

Such refining, which produces standardized resins meeting rigid specifications, requires specialized equipment for large scale operation of the same magnitude as synthetics. U.S.I. took a tremendous step forward in this direction years ago with the introduction of fused and esterified grades of Congo Gum. Well-directed research along similar lines has continued on other natural resins so that, given ample supplies, it will be possible to open up a completely new line of interesting and economical raw materials complementing U.S.I.'s wide variety of synthetic resins. Another field for natural resins lies in their use as raw materials for the manufacture of synthetic resins.

Data on Synthetic Fuels

More than 200 reels of microfilms covering hitherto secret information on synthetic fuels and lubricants are now obtainable. Until recently, this data was restricted to members of the Petroleum Industry War Council.

"There are times, Peabody, when I think you'd do better in some other field!"
Courtesy Drug and Cosmetic Industry

TECHNICAL DEVELOPMENTS

Further information on these items may be obtained by writing to U.S.I.

To preserve food from decay, (a) a new process has been developed which is alleged to prevent changes of color and flavor produced by other methods, and (b) a new series of petroleum-derived products are now available. **(No. 128)**

USI

A new leak detector, based on an electronic principle, is used to test hermetically-sealed instruments. **(No. 129)**

USI

A new plasticizer, claimed to be superior to many of the commonly used plasticizers in permanence, oil-resistance, flexibility and stability, is offered for use with polyvinyl chloride, ethyl cellulose, nitrocellulose, polyvinyl butyral and other resins. **(No. 130)**

USI

A new-type plastic packaging, which is said to withstand pressures up to 600 psi and temperatures ranging from −120 to +160 degrees F. is reported to be easily applied and to be removed merely by slitting the covering with the finger nail. **(No. 131)**

USI

To wash nylon, silk, rayon, and celanese without shrinkage or distortion is the purpose of a new soapless cleaner. It is claimed to refinish as it washes, depositing a protective film that remains on the fabric. **(No. 132)**

USI

A new color developing agent, designed for color films and color paper, is claimed to eliminate the danger of skin irritations and dermititis said to be produced by other agents of this type. **(No. 133)**

USI

A new odor-control product is claimed to overcome obnoxious restroom odors without exchanging them for annoying chemical odors. **(No. 134)**

USI

To remove fingerprints, a new polish has been developed, which is described as a non-flammable, non-greasy heavy liquid. **(No. 135)**

USI

A new mildew-proofing compound has been found effective in the treatment of athlete's foot as well as in general mildewproofing, the manufacturer states. **(No. 136)**

USI

A new-type plasticizer for synthetic rubber is stated to be completely soluble in Buna N and Neoprene. **(No. 137)**

USI

New luminous materials have been developed whose "glow rate" intensity can be controlled without use of either lamps or power supply, according to the manufacturer. **(No. 138)**

U.S.I INDUSTRIAL CHEMICALS, INC.

60 EAST 42ND ST., NEW YORK 17, N. Y. U.S.I. BRANCHES IN ALL PRINCIPAL CITIES

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Specially Denatured—all regular and anhydrous formulas
Completely Denatured—all regular and anhydrous formulas
Pure—190 proof, C.P. 96%
Absolute
*Super Pyro Anti-freeze
*Solox proprietary Solvent
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Amyl Acetate
Butyl Acetate
Ethyl Acetate
OXALIC ESTERS
Dibutyl Oxalate
Diethyl Oxalate
PHTHALIC ESTERS
Diamyl Phthalate
Dibutyl Phthalate
Diethyl Phthalate
OTHER ESTERS
*Diatol
Diethyl Carbonate
Ethyl Chloroformate
Ethyl Formate

INTERMEDIATES
Acetoacetanilide
Acetoacet-ortho-anisidide
Acetoacet-ortho-chlorqnilide
Acetoacet-ortho-toluidide
Acetoacet-para-chloranilide
Alpha-acetylbutyrolactone
5-Chloro-2-pentanone
5-Diethylamino-2-pentanone
Ethyl Acetoacetate
Ethyl Benzoylacetate
Ethyl Alpha-Oxalpropionate
Ethyl Sodium Oxalacetate
Methyl Cyclopropyl Ketone
ETHERS
Ethyl Ether
Ethyl Ether Absolute—A.C.S.

FEED CONCENTRATES
Riboflavin Concentrates
*Vacatone 40
*Curbay B-G *Curbay Special Liquid
ACETONE
Chemically Pure
RESINS
Ester Gums—all types
Congo Gums—raw, fused & esterified
*Aroplaz—alkyds and allied materials
*Arotene—pure phenolics
*Arochem—modified types
Natural Resins—all standard grades
OTHER PRODUCTS
Collodions
Ethylene
Ethylene Glycol
Urethan
Nitrocellulose Solutions
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Anchor Serum and Wholesalers

The policy of selling direct to wholesalers was reiterated at the wholesaler's meeting, held by the Anchor Serum Co., at St. Joseph, Mo. True Davis Jr., vice-president and sales manager of Anchor, emphasized the fact that there would be no deviation from this policy. In carrying out this program of education directed to stockmen and poultrymen. Anchor has inaugurated a national advertising campaign, introduced latest merchandising and point of sale aids.

Highlighting the meeting programs were speakers well known in their respective fields. H. T. French, McKesson & Robbins Co., San Francisco; L. J. Gardner, executive secretary, Control Agency, Kansas City; W. B. Stone, executive secretary, Animal Health Inst., Kansas City; W. C. Haase, Agricultural Research Dept., Swift & Co., Chicago.

Rucker Addresses Drug Section

Allen W. Rucker, president of the Eddy-Rucker-Nichels Co., management, sales and advertising counsel, Cambridge, Mass., also organizer and president of the Tool Owners Union, was the guest speaker at the fall luncheon meeting of the Drug, Chemical and Allied Trades Section of the New York Board of Trade held on October 30 at the Pennsylvania Hotel.

Tom Sheffield Now on West Coast

Following his discharge as a Major in the Army Air Forces, T. C. (Tom) Sheffield has been appointed West Coast sales representative for the New England Collapsible Tube Co. He has established offices at 7024 Melrose Ave., Los Angeles 38.

Mr. Sheffield was, prior to the war, Western manager of the New England Collapsible Tube Co., with offices in Chicago.

Garis on Vick Chemical Board

The Vick Chemical Co., has announced the election of H. H. Garis, president of the J. T. Baker Chemical Co., to the board of directors.

H. H. GARIS

Mr. Garis is one of the most widely known executives in the chemical field, and since the Baker Chemical Co., became a subsidiary of the Vick Co., has been responsible for the expansion program under way.

A modern, new laboratory has been completed, and many new manufacturing units have been erected during the past two years. Plans and specifications are now ready to start construction of several buildings on a new site a few miles north of the present Phillipsburg plant of the J. T. Baker Co., to operate as a new unit of the three million dollar expansion program.

Heyden Buys Phenol Plant

Acquisition of a phenol plant in Memphis, Tenn., is the latest step in the integration of the $25,000,000 Heyden Chemical Corp. The new plant, which will produce synthetic phenol, will further round out the Heyden line of basic chemicals now being turned out in plants throughout the country.

The Memphis plant, located on a 68-acre site within the city, was purchased from the War Assets Administration for $1,060,000. Known as Southern Acid and Sulphur plant, it was built during the war but never was put into operation.

Heyden expects to begin production by November 15. The plant will be managed by C. J. Adams, who directed wartime operation by the Heyden company of the Cherokee Ordnance Works, Danville, Pa.

In addition to its basic chemicals, the company is one of the nations largest producers of pencillin. Its Princeton, N. J., facilities were acquired early this year from the RFC., after two years of operation by the company for the government.

The Heyden Corp., was formed in 1925, with its principal plant located in Garfield, N. J. The same year another plant was acquired in Ford, N. J. The company also owns the Jamieson Pharmacal Co., Detroit, with a branch plant at Windsor, Ont. It has a large interest in Potash and Chemical Co., Trona, Calif., and a major interest in the American Plastics Co.

Armour Named Chairman of Amer. Potash

Bernard R. Armour, president of the Heyden Chemical Corp., has been elected chairman of the board of directors of the American Potash & Chemical Corp. He succeeds W. J. Frolich, who resigned.

Dr. Donald B. Keyes, a vice president of the Heyden company, and William S. Glazier, a partner of Lehman Brothers, were elected to the board. Dr. Keyes and Robert Brown, a partner of Kuhn, Loeb & Co., were named to serve on the boards executive committee.

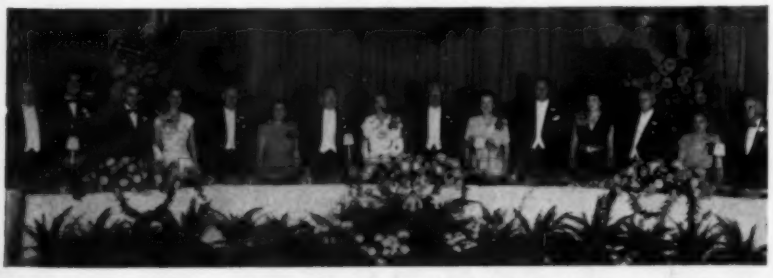
Resignations of three members of the Philip W. Collins, S. James Crowley and John P. Wagner, were made known.

Mauritius Importer

J. G. Collard, an established manufacturers' representative in Port Louis, Mauritius, is looking for the agency and distribution rights from American manufacturers. He is particularly interested in drug and chemicals.

A Boy to the Kalish's

A son John, weighing 5 pounds 3 ounces was born to Mr. and Mrs. Joseph Kalish, on October 3. Mr. Kalish, who is well known as an authority on cosmetics, was formerly technical editor for Drug & Cosmetic Industry.



The 75th anniversary dinner-dance of Fritzsche Brothers, Inc., found these celebrants at the head table (L. to R.) Dr. Ernest Guenther, Fred H. Leonhardt, John Cassullo, Mrs. Cassullo, Hans P. Wesemann, Mrs. John H. Montgomery, John H. Montgomery, Mrs. Frederick H. Leonhardt, Frederick H. Leonhardt, Sr., Mary A. Neary, Joseph A. Huisking, Mrs. Huisking, Dr. A. Nicolaus, Mrs. Nicolaus and R. R. Redanz.

You'll need a laboratory 50,000 feet high . . .

Physics has a new dimension. Materials and products must now perform satisfactorily at stratospheric levels, at supersonic speeds. You'll need a new laboratory, therefore, matching conditions at 50,000 feet for testing them.

Lectrodryers are already helping forward-looking manufacturers obtain the DRYness encountered at such heights. Dew points below −110° F. are possible with air, gases and many organic liquids, in volumes to suit the needs.

Equip *your* laboratory for stratospheric testing, and be ready to guarantee the performance of your products at these new heights. You can get complete data on DRYing by writing Pittsburgh Lectrodryer Corporation, 3093 2nd Street, Pittsburgh 30, Pennsylvania.

In England: Birlec, Limited, Tyburn Road, Erdington, Birmingham.
In Australia: Birlec, Limited, 51 Parramatta Road, Globe, Sydney.

PITTSBURGH

LECTRODRYER

CORPORATION

Hamilton Joins Bristol-Myers

H. T. Hamilton, Jr., has joined Bristol-Myers Co., New York, as assistant advertising manager, according to an announcement by Joseph M. Allen,

H. T. HAMILTON, Jr.

advertising manager of that company.

Mr. Hamilton, a native of Douglas, Ariz., received his education at Phillips Academy and Yale University. Following graduation in 1938, he was for three years associated with Young & Rubicam, New York, in their market research and media departments.

In 1941-42 Mr. Hamilton served as special assistant at Army Air Forces headquarters in Washington. He was commissioned as an Engineering officer, A.A.F., in 1942, and saw service at Manila, Okinawa and Japan. He was discharged from the service with the rank of Major.

Givaudan Moves in Detroit and Phila.

The Detroit and Philadelphia offices of Givaudan-Delawanna, Inc., have been moved to larger quarters in the Ford building and 215 South Broad St., respectively.

The Detroit office is managed by J K. Stevenson, recently returned from the Air Forces, and the Philadelphia branch by R. C. Morgan, who joined the company shortly after leaving the armed forces in 1945.

Jamieson Advanced by United-Rexall

R. L. Jamieson, long associated with United-Rexall Drug Co., as a representative, has been elevated to the post of associate to Austin G. Walker, director of Rexall Clubs.

In this position, Mr. Jamieson will assist Mr. Walker in directing Rexall conventions and other activities of the 37 Rexall clubs whose members are independent agents of the United-Rexall Drug Co. The clubs are state and combined state organizations, incorporated within the company to promote fraternal and commercial co-operation.

Mr. Jamieson began his career in the drug field while still in high school in Homing, Okla., working as a soda dispenser after classes. He attended Oklahoma A&M, became a registered pharmacist and was with the Frieday Rexall Drug store in Bartlesville, Okla., as manager and in other capacities for several years.

Trusedail Travels by Air

Dr. Roger Trusedail, president of Trusedail Labs., Inc., Los Angeles, really believes in chemistry on the wing. For faster more efficient service he has purchased an Ercoupe so he can call upon his clients. Holding a private pilot rating himself, Dr. Trusedail has found the plane an excellent means of getting about the vast western expanses. In a number of instances it has meant a saving of hours and even days, in the interests of clients with a hurry-up assignment on their hands.

Drs. Seneca and Wright Join Schering

Dr. Harry Seneca of New Orleans, formerly assistant professor of tropical medicine at Tulane University School of Medicine, has been assigned to the Schering Medical research division to carry on special research studies in the field of tropical diseases. Also appointed to the medical research division was W. Alan Wright, M.D., recently principal medical officer of the FTC, Washington and Dr. M. William Amster, of New York.

Dr. Seneca was released from the army with the rank of Major, he received his medical training at the American University of Beirut, and pursued special studies in parisitology and related fields in Paris, Vienna and at Tulane University. For a time he was instructor in the American University Medical School and later he became director of Baghdad's Pasteur Institute.

Dr. Alan Wright is a graduate of the Temple University School of Medicine, Philadelphia. He engaged in private practice, and later served as regulatory officer in medical, pharmaceutical and chemical phases of government activities.

Dr. Amster received his MD degree from George Washington University School of Medicine. He received a commission in 1940 and saw service in the Pacific theater as chief surgeon for the Fifth Air Force.

Dr. Ludwig Valik

Dr. Ludwig Valik, of S. B. Penick & Co., was one of those who died when an American Overseas plane crashed in Newfoundland on October 3.

DR. LUDWIG VALIK

He was enroute to Germany as a special representative of the government on a mission arranged by Dr. Charles E. Reed, of the Department of Commerce in Washington. Its purpose generally was to assist in the study of technical developments made during the war which our government has been making in Germany and other occupied areas in Europe.

Dr. Valik had been employed by the Penick company for three years as superintendent in charge of its Morganville, N. J., plant and was also the firm's senior aromatic chemist.

Born in Austria, 1901, he came to the United States in the late twenties and became a citizen of this country a few years later. He held a Ph.D. degree from the University of Vienna.

Dr. Valik resided in Matawan, N. J., with his wife, who survives him.

Mrs. Valik is also a chemist and was co-inventor with Dr. Valik on several patents.

Lee J. Perrin

Lee J. Perrin, chairman of the board of directors, CIBA Pharmaceutical Products, Inc., died recently in New York City.

Born in Cleveland, Mr. Perrin was graduated from Phillips Academy in 1902, Yale in 1906 and Harvard Law School in 1910. For thirty years a member of the law firm of Appleton, Rice & Perrin, New York, he became Ciba's board chairman in 1943. Mr. Perrin was associated with Ciba for many years, as a director, legal counsel and trustee. Much of the credit for the position of the pharmaceutical firm is due to Mr. Perrin's foresight and wisdom.

Patent Thoughts and Trends

• The purpose of this and succeeding articles is to furnish a service which it is hoped will be beneficial to the industries served by this publication. The intention here is to highlight recent patents of special interest to our readers. The approach at all times will be, as nearly as possible, the technical one, as distinguished from the legal approach. Thus, the patents will be considered from the standpoint of their being continually-enfolding texts of new applied chemistry, with little regard to the protection that the patentee may or may not have obtained with his claims.

Much more important, however, than the factual information to be treated here is the challenge which each patent should present to the readers: *to improve on the accomplishments of the patentees.* This can be done, and by more people than are now doing it. There is no mystery about how it is done. A relatively few people in each industry are doing it all the time. (Incidentally, many of these people happen to be among the leaders in their respective industries.) If one were to ask such men the secret of how they get their creative ideas, it is safe to say that they would admit they figured there was a still better way to lick the problem than the one others had suggested, and they set out to do it—often getting their solutions to the problems from the patent literature itself.

Of course, it is not meant, even for a moment, to suggest that all one has to do to contribute a creative idea is to snap his fingers, or rub a lamp, Aladdin-like, and get the answer. Genius is still, as they say, ninety per cent perspiration and ten per cent inspiration. In this connection the following words are believed to be of special interest.

"It is common to hear ingenious men disparaged by ascribing their best things to lucky or random suggestions, whereas, though appearing fortuitous, they may always be traced to previous reasonings or reflections, sprouting seeds whose transient planting had been little noticed and forgotten. They had never sprung up had they not fallen on soils prepared by previous culture to receive them. Sparks set not sand on fire, nor do fruitful ideas germinate in barren minds. Flashes of thought, like those of the electric fluid, may dart suddenly and unexpectedly, but they are not less the regular effects of inducing causes. Inspiration descends not in its highest or its lowest forms, but on those who seek to be inspired."

These words were written many years ago, way back in 1849, but they are as fresh and timely today as on the day they were given birth.

Admittedly, the American drug and cosmetic industries rank at the top. However, this is no guarantee of continued pre-eminence. A second factor, which thus far has seemingly escaped wide notice, is that the American drug industry, patentwise, in the past has relied upon many German-made inventions. Science being what it is, it is possible that its beneficial application will again cross national boundary lines. However, judging from reports coming out of Germany, it appears unlikely that Germany will be a major contributor to science for some time, which means that many concerns who in the past were aided by German-made inventions will have to develop invention-producing staffs of their own.

Recent Leading Patents

U. S. 2,407,713-(Merck)—Erythrina Alkaloid

Major and Folkers, and their coworkers, have produced alkaloids having curare-like action from species of Erythrina. These are said to be particularly useful for the release of spasm and muscular rigidity in patients with spastic paralysis, and for the modification of the severity of the metrazol convulsions, thereby preventing fractures in the convulsive therapy of the psychoses.

The present patent deals with the individual "free" alkaloid, called "erythroidine," and its production from seeds and dried flowers of the species of Erythrina, known as E. americana. The alkaloid "erythroidine" is crystalline, has the empirical formula $C_{16}H_{19}NO_3$, is a lactone which is susceptible to destruction by strong alkalis, forms a crystalline hydrochloride of melting point about 228° C., appears to be a mixture of isomers, and is highly active as a motor paralysant. It has been used with notable success in so-called "shock therapy."

U. S. 2,408,289—(Mallinckrodt)—Barbituric Acid Compositions

This patent appears to make a very signal contribution to medicine, overcoming certain difficulties previously present in administering barbiturates.

The subject matter is believed to be sufficiently important to set out part of the teaching of the patent as follows: "Barbituric acids are useful as hypnotics and anaesthetics. When administered by injection they are customarily employed in the form of strongly alkaline aqueous solutions of their sodium or other salts. These solutions are generally unstable, must be prepared fresh from previously sterilized components and decompose rapidly on heating. Moreover, they are very irritating to human tissue due both to their alkalinity and the osmotic effect that such hypertonic solutions produce and consequently their use is strictly limited to oral or intravenous administration.

In many instances it is impossible to administer these barbituric acids either orally or intravenously. For example, where the patient is suffering from shock, or where there is little time to carry out the operation, it may be difficult to find the patient's veins. The veins collapse in shock and are, therefore, difficult to locate, while if the administration is to be carried out on a battlefield or under other difficult conditions, it may likewise be hard to quickly determine the position of the patient's veins. It may be impossible to

(*Continued on page 708*)

Many of the answers are already in our book

Just about everything from mascara to anchovy paste can be safely packed in Alcoa Aluminum Tubes. Yet we still insist on testing *your* mascara or *your* anchovy paste in our tubes before we say "OK!"

At the Alcoa Packaging Laboratory, tests are made with your products to determine whether you can safely use *plain* Alcoa Aluminum Tubes, or whether you ought to use *inside-coated* tubes. And we'll tell you which of the score of coating materials will work best with your product. It takes only 90 days to get the complete data on these tests, made under the severest accelerated conditions of humidity, temperature, and use.

Alcoa Aluminum Tubes are strong to take a lot of squeezing and bending. They are light in weight, economical to ship. And they can be handsomely decorated in sharp, sparkling designs and colors of your choice.

Ask us for the list of pharmaceuticals, chemicals, cosmetics, and other paste products now being safely packed in Alcoa Aluminum Tubes. Let us run tests to see how your products will get along with our tubes. There is no obligation.

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CONSUMER: "Meritseal is so attractive . . . it fits right in with my vanity accessories. I like the easy way it comes off the jar, too."

RETAIL SALES: "It's no trouble at all to make a compelling display of products using Meritseal. They're the kind of eye-catchers that turn *looks* into *sales*."

PRODUCTION SUPERINTENDENT: "I'm looking for trouble-free performance and results on the production line. Maybe I am too practical, but I know that these things make a big contribution to profits. Meritseal is solid with me."

COSMETIC MANUFACTURER: "I'm well aware of the fact that a successful closure must do all of these things and do them well . . . but let's not overlook the important factor of cost. After all we are in business to make money. I'll say that Meritseal clicks on every count."

Everyone who comes in contact with Meritseal likes it. It has every feature to enhance the appearance of a quality cosmetic package . . . and at a price that makes it doubly attractive.

Meritseal is available in standard sizes ranging from 48 mm. to 89 mm., and larger sizes will soon be available. We will gladly send full information and samples so that you can try Meritseal . . . right on your own package.

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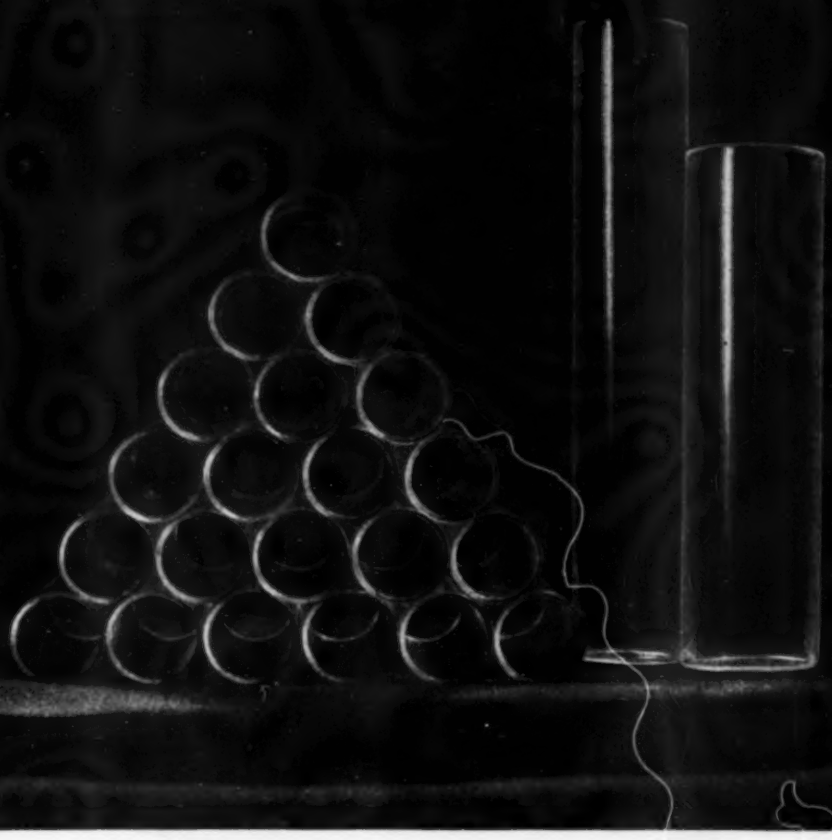

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Absolute uniformity of drying, regardless of season; protection against contamination in the processing; speed and safety;—these are the essential requirements for modern drug drying. ROSS Dryers, of batch or conveyor type, embody exclusive design and operating features that make them first choice with leading manufacturers in the drug industry.

Prominent Users of Ross Dryers include:
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3. A submerged baffle-plate deflects the rising current horizontally toward sides of tank, thence flowing downward toward bottom.
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6. No surface boil . . . no vortex . . . NO AIR DRAWN IN.

The Eppenbach HOMO-MIXER is built on an entirely new principle. Whereas ordinary mixers create a vortex in the material that pulls in air, the HOMO-MIXER draws only from the bottom of the tank. Entrapped air tends to cause separation and splitting, and frequently oxidizes the product.

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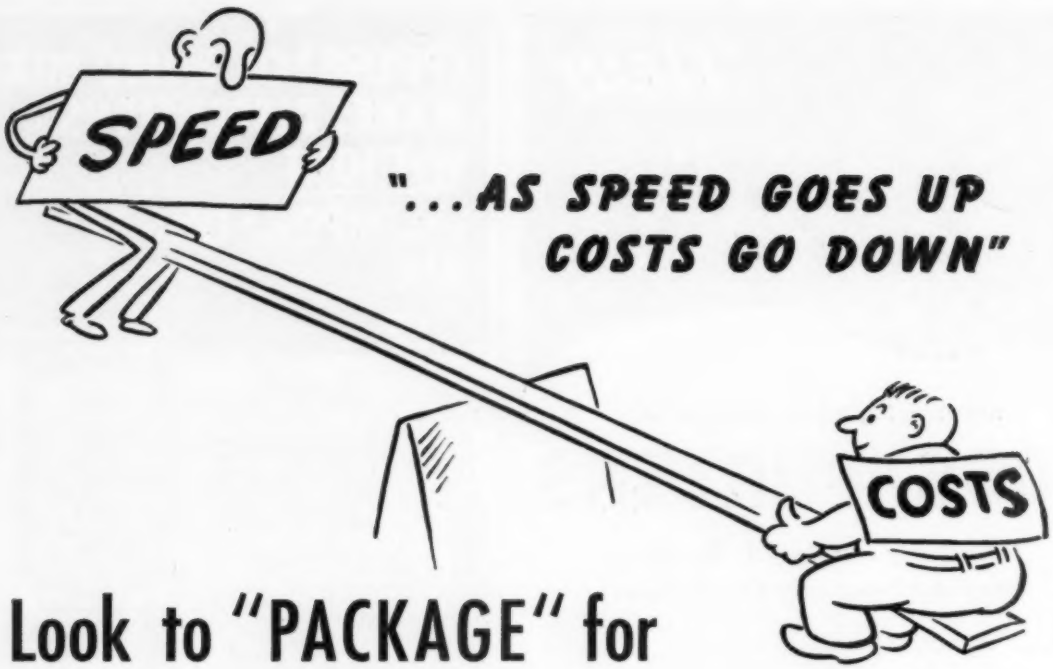

"...AS SPEED GOES UP COSTS GO DOWN"

Look to "PACKAGE" for faster wrapping machines

Some of the many products wrapped on our machines. We have a machine to meet every wrapping requirement.

You hear a great deal about the approaching "buyer's market". When it arrives, the manufacturer who has kept his costs in check is going to have a real selling advantage.

As regards packaging, large savings can be made by high-speed wrapping machines. At the same time, these modern machines also ensure uniformly fine-looking packages—which also aids sales.

It's no secret that numerous package goods manufacturers in every field are replacing older and less efficient wrapping equipment with faster Package Machinery Company models. These machines require a minimum of supervision . . . Most of them are quickly adjustable for various sizes of packages (can replace several fixed-type machines) . . . They are easily hooked-up with cartoning equipment for automatic feed . . . And they are built for high-speed operation with a minimum of wear. Their mechanical superiority is strikingly demonstrated by the smooth, relatively quiet manner in which they operate.

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We suggest that you let us check your present wrapping and packaging methods. Such a check-up involves no obligation and it may lead to important savings.

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PACKAGE MACHINERY COMPANY

Over a Quarter Billion Packages per day are wrapped on our Machines

Production Forum

By Francis Chilson

Industrial Consultant

Cutting the Line

One way to step up the efficiency of a plant is to reduce the number of items you have to make in it. This will increase your machine capacity, and it will increase your available space.

It is hard to make manufacturers see that. But more items require more clerical work, hence more office space; more control work, hence more laboratory space and more chemists; more warehousing space for packaging materials, raw materials, and finished stock, hence larger buildings; more machine capacity, hence more machines, more washing up time, more setting up time; finally, more items require more direct and indirect labor in the plant all along the line.

Volume minded sales people and accountants, who never can figure the value of nor the cost of intangibles, hate like the devil to drop an item as long as there is some of it in the inventory, and as long as it is still producing a few dollars in sales. When a "kill" committee is set up to weed out unprofitable items from a general line, the process is long and tedious, because the sales department hates to drop anything that will help maintain volume; the cost department has cock-eyed idea that such items help to absorb overhead; and the accounting department worries about a few dollars in packaging material or finished stock inventory which may have to be written off.

The attitude which should be followed is exemplified by the attitude and the action of Jack Searle when he decided in the early '30s to shift his company from a physician's supply house to a straight specialty house. When Jack starts to do anything he doesn't let any grass grow under his feet in getting it done. At that time, the Searle line consisted of several hundred relatively small volume items, and only a few big ones. One day when I was sitting in his office, Jack Searle summoned the then sales manager of the company, Bob Spaulding, and picking up the company catalog, he ripped it in half and handing one half to Bob he said, "These items are discontinued as of today."

That's all there was to it.

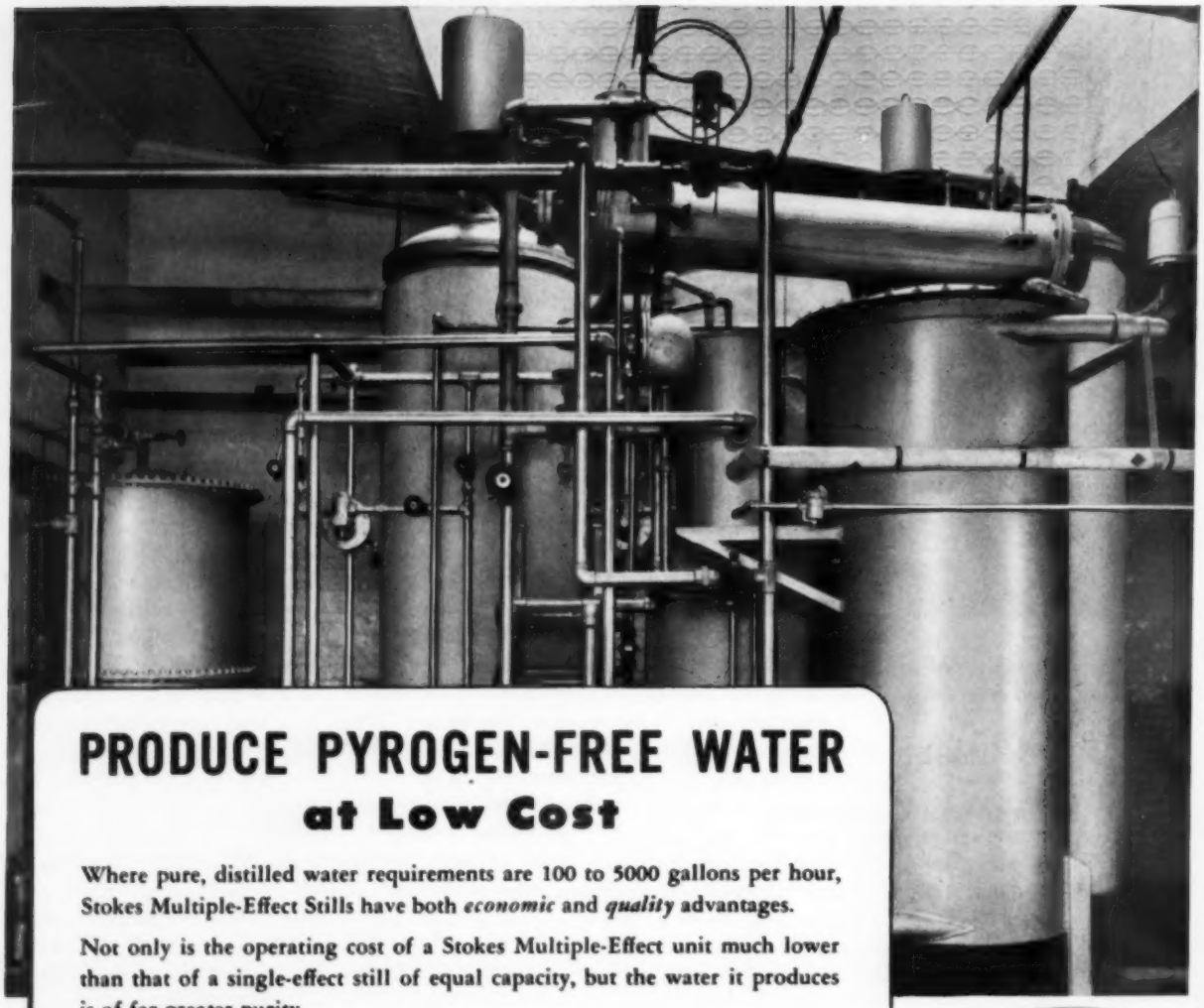
He didn't worry about the money tied up in inventory; and he didn't waste hours determining how long the packaging material on hand would last if the items were continued in the line until the packaging material was used up. He just made up his mind that the time had come to unload some of the dead wood and he unloaded it with one fell swoop, and in no uncertain terms. Jack knew, of course, what was in the catalog when he ripped it in half and he had a general idea that the several hundred items he so promptly discontinued were going to represent a bookkeeping loss. But Jack Searle is one gent who, in his life exemplifies the maxim that if a thing is worth doing, "let's do it now." The phenomenal success of his company since that time has attested to the soundness of his judgment. With only a handful of items as compared with what the company used to have, the business of the company has multiplied enormously.

So, if you have a lot of items that are really no good, kill 'em, and don't piddle around. Don't call in the accountants. Don't even call in the sales department if you can help it. You will find that if you act promptly and vigorously as Jack Searle did in reducing his line, that the increased efficiency of your plant, office and laboratory all along the line will more than compensate for any loss sustained in discarded inventory.

I understand that Bristol-Myers did the same thing in the middle '20s when they decided to shift from a physician's supply house to a cosmetic specialty house. At that time, so the story goes, the entire line of some 4,000 items was discontinued, with the exception of Ipana and Sal Hepatica, in one fell sweep. The growth of Bristol-Myers in the last 18 years has certainly testified to the wisdom of such a policy.

Yet in spite of these and other examples, there are firms which will persist in piddling around from month to month and year to year in paring down their line. I suggested to a client of mine, who hated to drop anything in the line, that it would be desirable to set up, in the plant, a service pharmacy under the direction of a capable pharmaceutical chemist and that all items

Stokes water stills



PRODUCE PYROGEN-FREE WATER
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Where pure, distilled water requirements are 100 to 5000 gallons per hour, Stokes Multiple-Effect Stills have both *economic* and *quality* advantages.

Not only is the operating cost of a Stokes Multiple-Effect unit much lower than that of a single-effect still of equal capacity, but the water it produces is of far greater purity.

Stokes pioneered the development of this type of equipment more than 25 years ago . . . is today engineering and building water stills to meet all requirements.

In the production of pyrogen-free distillate for use in saline, glucose and other intravenous solutions and for restoring desiccated blood plasma and many other purposes, Stokes Stills are widely used.

A complete line of laboratory stills is also available.

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F.J.Stokes PROCESSING EQUIPMENT FJS Est 1895

which should be discontinued should be turned over to this department, which moreover, should be equipped with all of the small scale equipment necessary to make any item in the line. Then, as orders for dead items came in, they would be shipped from the service pharmacy without clearing through the factory.

If, for service or sales reasons, discontinued items had to be made up in small lots, they could be manufactured and checked in this department. In other words, the service pharmacy would operate exactly as a large scale prescription department. But the laboratory and the plant would be wholly divorced from its operations. Production orders, assays, etc., would be unnecessary, and the whole department could be charged to the sales department as a sales expense. There was the rub. When the sales department heard I proposed to charge the pharmacy to them, there was hell to pay over it. They were willing to piddle along and pamper certain favorite doctors and hospitals by providing discontinued items for them long after they had been removed from the list, but they weren't willing to sustain the expense of doing it. So long as such expenses could be buried in the general office, laboratory, and factory overhead, it was o.k. with the sales department.

We are all willing to enjoy benefits so long as somebody else pays the shot.

As I have said before, and say again, I don't believe in "loss leaders"; I don't believe in "service items"; I don't believe in anything that doesn't make money. The simple fact is that no organization in the drug and cosmetic industry can serve the entire trade with all the manifold items it uses (amounting to over 50,000 in the average drug store); so a line has to be drawn somewhere. And the line had better be drawn before material and equipment become freely available again and the post-war competition sets in with a vengeance.

Evaluating Intangibles

Not long ago I heard a discussion of a plant expansion program in the food industry. This company was confronted with the necessity of expanding its existing plant which is located some distance from a railroad siding, or of abandoning the existing plant and starting over again in a more suitable location and with siding facilities. Since the company is double ultra conservative, and hence bookkeeping minded, the only disadvantage it could evaluate in being off a siding was the cost of the trucking to and from the siding. This amount was added together with the cost of operating the trucks, and it was decided that this saving couldn't possibly amortize the loss that would be sustained in abandoning the plant. The management was totally incapable of evaluating any intangibles. They made a bookkeeper's decision, pure and simple.

Not only is that plant located away from the railroad siding, but every building on the plant site is improperly designed for its particular type of manufacture, and consequently, so will the new addition be, because it likewise must have several stories in order to tie in with the remainder of the plant and to utilize properly the small amount of ground available to it.

The intangible factors, however, consisted in the fact that by building a new plant, buildings of the right type, shape and size could have been developed; the right kind of material handling system could have been utilized throughout; very much better working conditions could have been provided for all employees. And the effect of these intangibles on operating cost would have been enormous. The intangibles would have built the new plant and then some.

This can be illustrated by a recent experience in which I asked the plant manager of a certain firm which operates several plants, as to the relative difference in unit cost between one plant and another. The most recent plant was a one story structure, with a second floor for offices, laboratories, services, etc. It also has a second floor manufacturing department. This plant makes the same products as all other plants, and uses identical equipment. The only difference between plants is in the type and location of the new building; the finish of the building; and the beauty of the structure itself, together with its surroundings. The plant manager's response was that over a period of ten years, operating costs, (materials not included of course) in the new plant were 23% lower than in the other plants. To me, that tells the story of the great value of intangibles.

Coming back to the instance cited in the first paragraph, there was no necessity of making a new plant move in one jump. Offices and laboratories could have remained at the old plant site indefinitely. Only the principal operating departments and the warehouses were needed at the new plant site to exert maximum benefits. Then, over a period of time, department by department, the whole unit could have been consolidated.

This is all the more true when it is considered that the existing plant and the major part of its equipment were almost completely depreciated. Now a costly addition to the old plant will make any future abandonment utterly uneconomical and impossible.

It will be interesting to watch the effect of this decision in the forthcoming years. It may not be fatal to the company in question, but in the judgment of this observer, it will not be helpful.

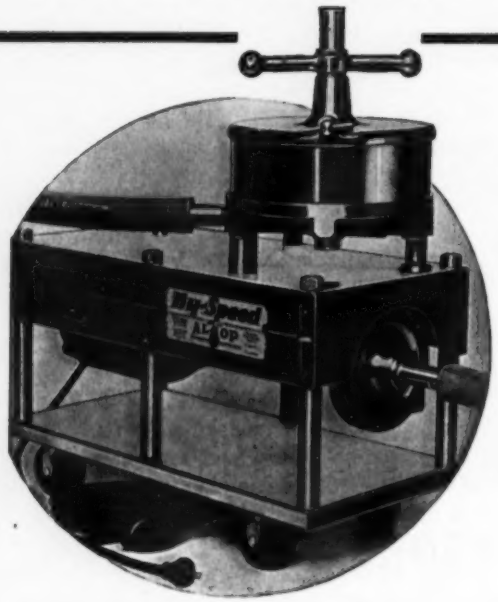
The older I grow, and the more experienced I become, the more I realize that the truly great executive is the one who can evaluate intangibles more readily than the tangibles. Any bookkeeper can evaluate the tangible results of a course of action, particularly after it is taken.

The Curse of Accounting

Many accountants seem to feel that business is operated solely for the purpose of keeping records. The late, lamented Turner Currens used to call any general office (meaning mostly accounting departments) the "overhead department." He wasn't far wrong when you consider that in the average financial statement, 20 to 25 per cent of the company's income is set aside for

A PROVED PRINCIPLE

For positive, trouble-free filtration



You can simplify the problem of getting a perfectly clarified product, free from all foreign particles and cloudiness by using an Alsop "*Sealed-Disc*" Filter that's specified for your particular conditions. The principle of filtration used in the "*Sealed-Disc*" Filters provides an enormous filter area and surface in a surprisingly small space.

You'll find one of the eight different grades of asbestos filter discs used in the Sealed-Disc Filter, gives you just the right degree of fineness of filtration you require.

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Filter discs can be changed easily and quickly. It is just as simple to clean the entire machine for use on different liquids.

Requires exceptionally small floor space. For example, a 600 gals. per hour filter complete with motor and pump requires only a 9" x 20" floor space—a 2000 gals. per hour unit requires only 12" x 24" of floor space.

Made in sizes, with or without pumps, from one gallon per minute up to thousands of gallons per hour.

Being completely sealed, these filters eliminate loss of liquid through leakage or dripping or even by evaporation.

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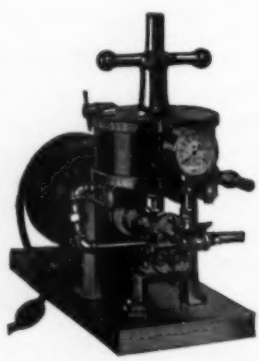

This compact, low price bench model for conveniently handling small batch work provides maximum possible flow rate with positive clarity.

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"administration expenses," meaning mainly accounting and record keeping of one form or another. We have done a lot of talking about reducing the cost of distribution, but I think we also should do something about reducing the cost of accounting.

I realize, of course, that no business can be operated without some accounting. But accounting can be done in the mass as well as in detail. It never has seemed necessary to me to account for the last penny and the last fraction of an ounce of every material that is bought and then also to follow it through all its various metamorphoses in several departments to final disposition.

Let's consider research for example. Research, development and control work also are expenses which every company foresees and usually budgets. It would seem to me, therefore, that it would be sufficient at the beginning of the year to determine how much money is to be spent for each of these departments, and then charge that amount of money off on a monthly basis without forcing the scientific departments to account for every last nickel. So imbued have we become with the accounting mania that the average research director is forced to become nothing more than an accountant's clerk. Most of his time is spent on records.

We go to the expense of hiring widely experienced and well qualified scientists to head up our research efforts and then we lead them down with clerical detail—making out orders, signing requisitions, making out budgets, and God knows what beside. The average laboratory administrator has so much clerical work to do in addition to the necessary modicum of reports that he hardly has time to find out what is going on in his laboratory. By overemphasis on accuracy of records, we make it seem more important to stay within a budget than to get any work done.

If most students of chemistry realized that the end result of getting a Ph.D. in chemistry would be, in many cases, to permit them to sign requisitions for material, and to make up budgets, I think few of them would go in for such prolonged scientific training.

It does seem to me that since research, control and development work are expenses which, in the main, are foreseeable, all such expenses should be written off at once, with no accounting made of them. Accountants will tell you that if you don't force chemists to make out requisitions for new beakers, for example, they become careless and break more of them. It has never been shown in the history of this world that forcing a man to account for the materials he uses or employs in his work has in the least degree minimized waste. But accounting for all such triviata does take an immense percentage of the time of every man in every laboratory from the administrator down. I realize, of course, that income tax regulations will not permit charging off expensive items of equipment directly. But, accounting for equipment presents no problem because not enough of it is bought or turned over.

In any event, it seems to me that if the average concern can afford a research program and if it insists on accounting for every last dram of material used by the laboratory, then it also can afford a clerical administrator who can keep the records and make out the requisitions and the routine reports. Let the clerks devote their time to clerical work and let the scientists devote their time to scientific work.

The accounting disease is not less noticeable in factories. Some plants still operate cost systems on a batch basis, even though the cost of each succeeding batch varies little from its predecessor. I have been in plants where the plant manager rarely ever had time to leave his office, what with budgets, estimates, production orders, requisitions, and God knows what, that he had to look over and sign. Indeed, I have been in packaging departments where the head of the department had so many papers to sign that it was physically impossible for him to read them all. So, he would sit for hours signing papers which really meant nothing to him. In the meantime, conditions in such departments are anything but what they should be, simply because supervisors do not have time enough to do the job for which they are hired.

It would probably not be far wrong to say that 60% of the time of every key man in every plant where an accounting mania prevails, is spent in clerical work of one kind or another, forced on him by the necessities of a "system."

In fairness to the accountants, however, it must be admitted that chemists themselves, and sales people, particularly, very often regard themselves as accountants and statisticians, and will of their own volition set up a lot of useless records. I know some chemists and some sales people who should have been accountants because that is their natural bent. They would rather compile records than do any useful work.

Years ago I established a method of record auditing which in the intervening years has been proposed to several clients with excellent results. Under this system only the comptroller of a company may initiate a record. This system applies not only to records of various kinds, it also applies to forms. No one can initiate a form without the approval of the comptroller and if the comptroller cannot supply the information from another source, he may permit the form or the record to be initiated, in which case it is given a name, number and date. Annually the records in every department are reviewed and all those which have served their purpose are discontinued. Now, if you have a comptroller with common sense, this system works swell, but if your comptroller is a record shark, he will soon have everybody in every department accounting for all the fly specks on the doors.

I sometimes think it would be desirable not to have any secretaries or clerks in any department whatsoever, outside of the general office. By classifying the office workers and by installing radio intercommunication systems, it would be possible for any boss or straw boss in any department to have requisitions prepared or letters written by remote control without resorting to the telephone.

Regardless of the method used to reduce the cost of record keeping, the fact is that record keeping of one kind or another takes too great a percentage of the industry income, and something should be done about it. It would be a darned sight easier to reduce the cost of keeping records than it would to reduce the cost of distribution. The one phase of operation is wholly under our control, while the other isn't.

Professional Pharmacy

There is a good deal of discussion going around as to what constitutes a "professional" pharmacist. Is he a merchant? Is he a soda jerker? Most of them are, whether they want to be or not, general merchants. Idealists may yell to the high heaven that a retail pharmacist is a truly professional man and should confine his activities to his profession. But the fact is that there are thousands of towns in the United States which would not support an "ethical" drug store. To stay in business, therefore, the pharmacist has to have a soda fountain or a lunch counter, and a broad line of general merchandise. The trend toward general store merchandising continues apace in the drug, in the food, and in the hardware field. Hence, it is hardly fair to expect the druggist not to sell general merchandise when the local super-market cuts in on his sales of household and proprietary drugs and cosmetics. The pharmacy schools seem to recognize this because the curricula of such schools have, for years, emphasized the merchandising elements of the pharmacy profession.

While retail pharmacy will always be an indispensable profession, it is this observer's opinion that the basic profession of pharmacy is confined to the manufacturing branch of the trade and this is all the more truly so since about 70% of the prescriptions filled in the United States annually are for packaged medicines in which the function of the retail pharmacist is to remove the manufacturer's label and affix his own. The profession of pharmacy is getting to be too big to think of it in drug store terms. You wouldn't expect to find a pharmacologist working in a drug store, nor would you expect to find a pharmacognocist, nor a pharmacentical engineer working there. The profession of pharmacy is growing, and as it grows, it is breaking down into natural divisions such as those mentioned. The pharmacy schools haven't yet realized the full importance of pharmaceutical education. They don't seem to realize yet that pharmaceutical engineering may be a lot more important to pharmacy as a profession than store arrangement or the proper method of making sandwiches.

Modernize Now

The construction picture is still so confused and indefinite that everyone of you who is contemplating a construction program, had better defer it if you possibly can. Construction is not merely expensive; it is almost impossible. Even after you have committed yourself to a construction program, knowing that it is going to cost you almost twice as much per square foot as it would have cost in the middle of the 1930's, you are still up against the question of material deliveries.

Recently we participated in an expansion program involving a substantial amount of construction. The first unit was relatively simple, and in ordinary circumstances, it could have been built and occupied within a period of six months. At the end of a year, the unit was still not completed. About half the lighting fixtures were on hand, about half the plumbing fixtures were on hand. In a situation like this you can't call subcontractors in every time a small shipment of a particular material comes in because to do so would run the cost of the job up enormously. Even at that, the job in question cost 35% more than anybody thought it would.

In today's market, construction costs are approximately 40% labor, 25% materials, and 35% builder's overhead, profit, engineering and architectural fees, freight and trucking. It is obvious, therefore, that the only place where a substantial cut can be made is in labor, and you know how much chance there is of that.

Let's suppose that you are planning a superlatively good job of construction. Let's assume that you have plans for a packaging department which is to be air conditioned, which is to have a hung, sound-proof ceiling, which is to be lighted with flush, fluorescent fixtures, which will have tile walls and cove corners, and a floor finished in side grain maple block, laid in mastic, or finished with heavy-duty asphalt tile laid on a monolithic concerte slab. Before the war you could talk of that kind of construction on the basis of $6.00 a square foot, assuming a 15′ headroom, or in other words, $0.40 a cubic foot. Right now, construction of that kind will cost $10.00 a square foot with escalator provisions which might make it $11.00 or $12.00 by the time you got finished with it. Ordinary cinder block warehouse construction which used to run about $2.00 a square foot is now $5.00. Ordinary brick and sash factory construction which used to run from $3.50 to $4.00 a foot is now $7.50 to $8.00.

I know that all this sounds pessimistic, but if you don't really have to build, and can defer it for a period of five or ten years by modernizing your existing plant, don't build. It is hard enough to modernize an existing plant, God knows, considering the shortage of incidental materials and the long delivery dates on equipment. But one thing about a modernization program, if it is intelligently handled, is that you can plan so that you can keep going while the job is in progress. And if it has been properly conceived, you can not only increase your production, but in some cases you can multiply it. I have been associated with modernization programs where the capacity of a given plant was tripled, and in one instance, it was multiplied tenfold. Modernization pays if it is possible.

There are cases, however, where it is not possible to modernize an existing plant simply because the plant itself is in such bad shape that the money spent in putting it into reasonable operating condition would be

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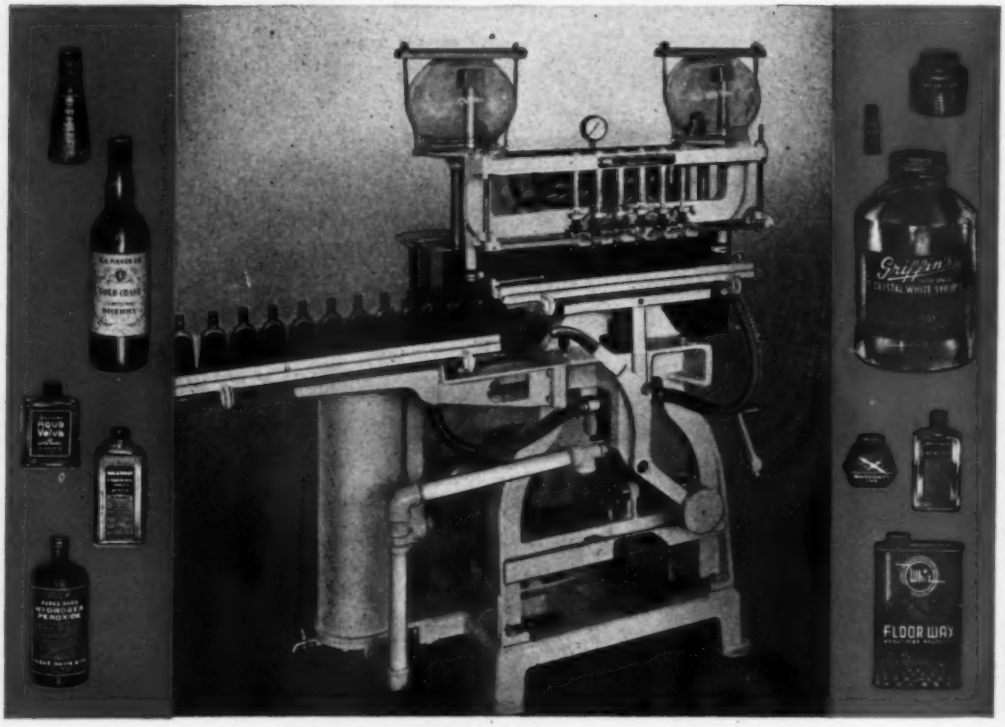

Practically every known commercial liquid has been handled on a Samco Filler at one time or another. Producers of free or semi-free flowing liquids have widely received the Pneumatic vacuum filling process as a clean, accurate system which allows for continuous operation at high speeds.

Where the call is for short runs on many products, change-over time must be held to a minimum and in such production lines, bottlers everywhere have found the Samco Jr. pictured above to be the last word in Filling efficiency.

This semi-automatic machine will handle containers of 1 ounce up to 1 gallon in regular finish or AGST glassware and cans at speeds ranging up to 40 per minute. Extremely flexible, the Samco Jr. may be found in a number of plants where thirty or more products are being bottled in as many as twenty sizes, all on the one machine. It is simple to operate and easily adjusted to new sizes on an average of 10 minutes per change. It was built by Pneumatic to operate at "Lower Cost per Container."

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throwing good money after bad. Sometimes it happens that no matter what is done with an existing plant you still can't get sufficient additional capacity out of it to justify modernization cost. In other words, there are times when construction is the only alternative. Now if you are faced with that kind of situation, you might just as well go ahead with it immediately, because nothing will be accomplished by waiting. It is the concensus of builder's and architects opinion everywhere that material costs and construction costs will come not down for ten years.

The following information is supplied by manufacturers of the equipment described and claims made below by these manufacturers are passed along for what they are worth. Presentation of such notice in this department is not to be taken as endorsement of the claims or of the equipment.

Dry Granulating

Some time ago you may recall I told you of a roll-type granulator and for which I had applied for a patent. This equipment is now being tested at the Chattanooga Medicine Company and while there are plenty of bugs in it, progress to date indicates a promise of success. This machine was introduced in the hope of developing the means of eliminating dryers in granulating operations, and in also eliminating the slow and costly slugging process. The manufacture of tablets by either the wet or dry granulation method leaves a lot to be desired. And I am hoping that this dry granulator may be the answer, if not for all, at least for many products.

Versator

The Cornell Machine Company, 101 Park Avenue, New York 17, New York has introduced a unique processing machine called the "Versator." The unit consists of an enclosed tank capable of withstanding high pressure or vacuum, in which is mounted a 26" disc having the form of an open bowl and operating at a speed between 900 and 1,800 rpm. This drive is arranged so that the speed can be varied. In operation the material is fed to the center of the spinning disc in the form of a thin film. The shape and speed of the disc is such that this film proceeds in widening spirals to the edge of the disc where it reaches maximum velocity and in effect becomes all surface. Such a thin film, therefore, becomes ideal for the application of vacuum or pressure, heat or cold, or several drying processes.

It is claimed that the Versator can be used for homogenization, emulsifying, dispersing, deaerating, dehydrating, evaporating, or distilling. Likewise, it is applicable to hydrogenation and oxydization operations. It is claimed that capacities range from ten to one hundred gallons per minute with a maximum power consumption of 7.5 h.p. It is further claimed that viscosity of the material to be treated is immaterial.

Arrangements can be made with the company to rent one of these units for a year for experimental or production purposes.

Hy-R- Dispersion Mill

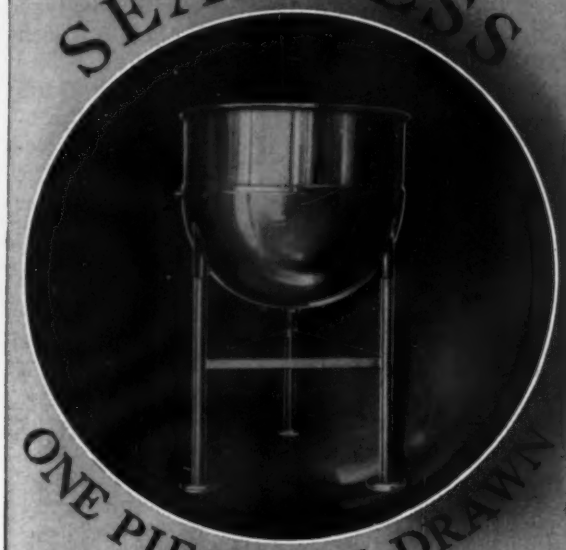
The new SB1400 Morehouse Hy-R-Speed Mill, designed for a wide range of grinding uses with more than a gallon-a-minute capacity, is now ready for quick delivery. Manufactured by Morehouse Industries, Los Angeles, the SB1400 Morehouse Hy-R-Speed Mill has interchangeable parts, dual bearing mounts, and a 6-Spline coupling to its 20 hp. motor that has been designed for increased efficiency. Measuring only 5' x 18"—a real plant space-saver!—the SB1400 has greater

cooling capacity and a more efficient fume collection system than previous models. It can be used on a wide variety of substances and is adjustable while the mill is in use. Easy to clean and extremely easy to disassemble and reassemble, the SB1400 Morehouse Hy-R-Speed Mill can solve many difficult grinding problems. For full details, write: Morehouse Industries, 1156 San Fernando Road, Los Angeles 31. (Other Morehouse Hy-R-Speed Mills are available in stainless steel models suitable for creams, ointments, etc.)

Bag and Envelop Maker

The Kno-Mead Company, 133-23 Thirty-fifth Avenue, Flushing, Long Island, have introduced a high speed "Roto" bag making machine. This machine will turn out from 5 to 12 thousand heat-sealed bags per hour with one operator. The machine is adjustable over a tremendously wide range and the machine itself is very compact. After November first, the machine may be seen in operation at the Company's headquarters in Flushing.

SEAMLESS



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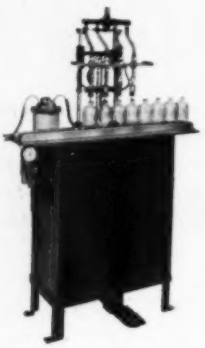

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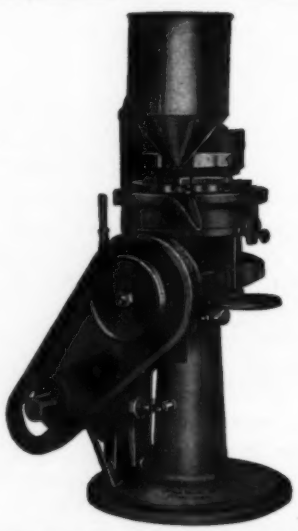

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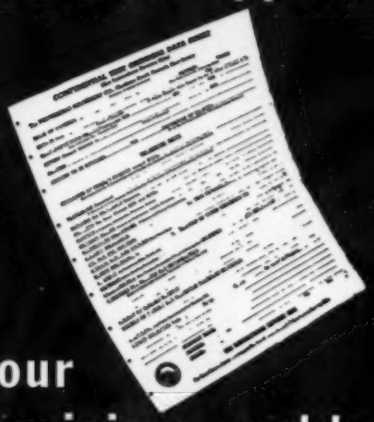

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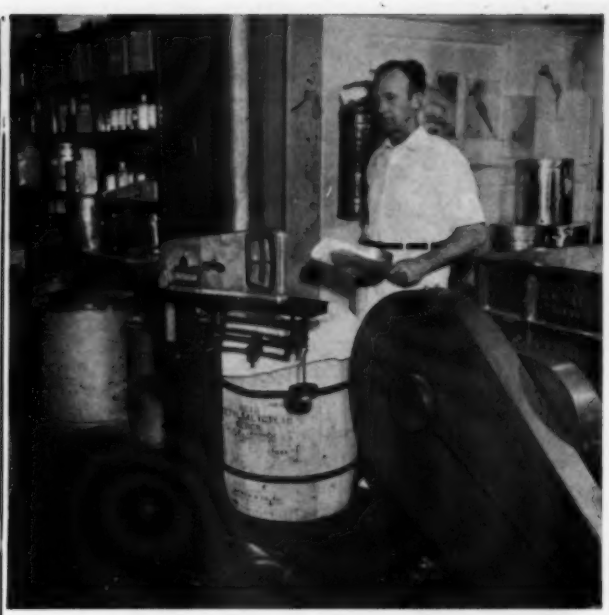

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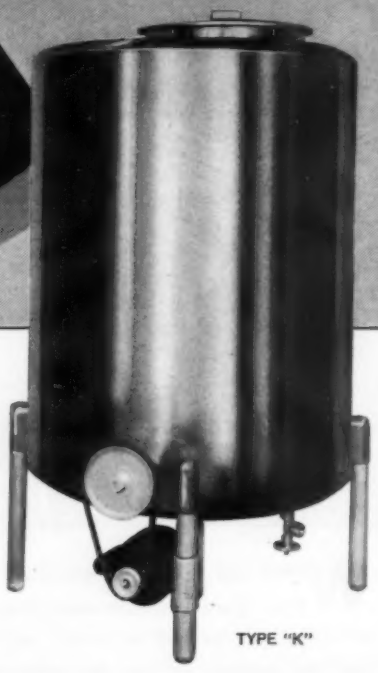

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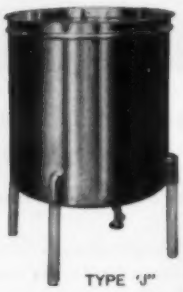

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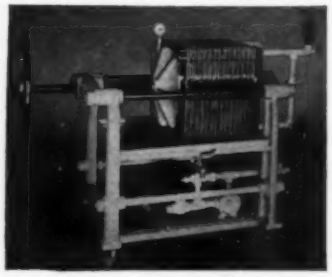

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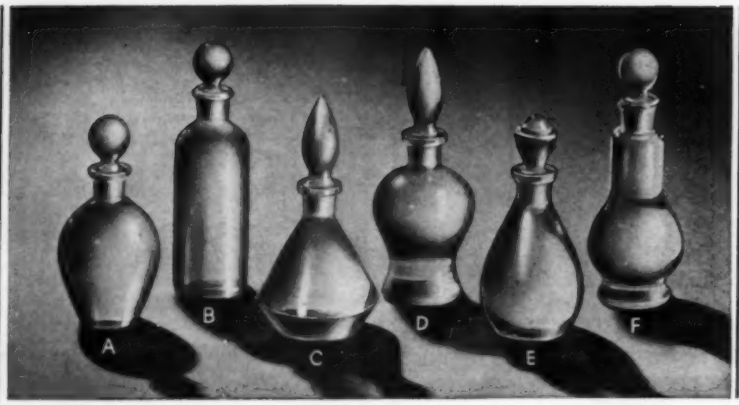

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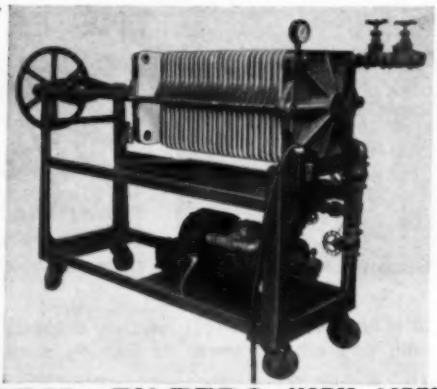

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READERS' QUESTIONS

CAKE MAKEUP: Please send any information that you may have on the preparation of "Pancake Makeup." If you do not have this or cannot secure it, may we request the source which would be able to give us this information. Atlanta.

I must point out immediately that the term "Pancake Makeup" itself is the trade-mark of the Max Factor Company, which also holds basic patents on the manufacture of this type of cosmetic product. If you wish to study these patents, copies of them may be obtained from the U. S. Commissioner of Patents, Washington, D. C., at twenty-five cents per patent. The patents are: U. S. Patents 2,034,697 and 2,101,843.

An article on cake makeup by H. Hilfer appeared in the March 1944 issue of "Drug and Cosmetic Industry," page 285, and was reprinted in the "Drug and Cosmetic Review" for 1946-7 page 174.

CREAM SHAMPOO: We are interested in preparing a cream shampoo based on the use of a synthetic detergent. Any information will be appreciated. Lexington.

Many modern cream shampoos consist essentially of a synthetic detergent base stiffened or thickened with stearate. As a working basis I might suggest that you try the following:

Synthetic detergent paste	**60**
Steric acid	**10**
Borax	**8**
Water, to make	**100**

ALCOHOL PERCENTAGE: Quite some time ago, you sent me a formula for a skin freshener or skin tonic and you gave the amount of alcohol as 30, but you did not state the percentage of alcohol to use, 70, 95, absolute or what percentage. The remainder of the formula contains glycerine, lactic acid and water. I should also like to know if isopropyl alcohol could be used in such a preparation. Grand Rapids.

When the percentage strength of the alcohol is not given in a formula, it is generally assumed that the concentration employed is 95 per cent. Isopropyl alcohol probably could be used satisfactorily in a skin freshener except that its odor is quite difficult to mask and this might be a serious objection in a face lotion.

PRESERVATIVE: I noticed in the Readers' Question section of the August 1946 issue of Drug and Cosmetic Industry *that you suggested a formula for a hand lotion which included quince seed and a preservative. I am very much interested in a preservative that can be used effectively with quince seed, and would appreciate knowing what preservative you recommend. Hillside.*

I would recommend 0.15 per cent of methyl parahydroxybenzoate or 0.02 per cent of n-butyl p-hydroxybenzoate.

ANALGESIC LINIMENT: Can you suggest a method for making a liquid analgesic balm, containing camphor, menthol, methyl salicylate, etc.? Cincinnati.

I think that the following formula for an analgesic liniment taken from the "Pharmaceutical Recipe Book" will adequately fill your requirement:

Menthol	**45 Gm.**
Olive oil or peanut oil	**300 cc.**
Oil of camphor	**250 cc.**
Methyl salicylate, sufficient to make	**1000 cc.**

Mix the oil of camphor and 200 cc. of methyl salicylate and in this dissolve the menthol. Add the olive oil and sufficient methyl salicylate to make the product measure 1000 c.c

WAVESET: We wonder if you might help us by suggesting the formulation for a waveset? New York City.

A Waveset lotion can be made as follows:

Gum karaya	**1.75**
Water	**90.75**
Methyl parahydroxybenzoate	**0.25**
Perfume	**0.25**
Alcohol	**7.00**

Mix the gum and half the alcohol and stir the mixture into the water. Strain if necessary. Add the perfume and preservative dissolved in the rest of the alcohol.

WATER FREE BASES: My current pressing need is for a formula for a fairly soft cream that is entirely free of water. I want to use it as a base for a bulkless active ingredient. Can you help me? Coral Gables.

It seems to me that Simple Ointment U.S.P. might serve your purpose quite satisfactorily. A somewhat similar product, which could be used as a base, is made as follows:

Mineral oil	**65.0**
Patrolatum	**15.0**
Paraffin	**20.0**

If you want a more rounded preparation, try the following:

Mineral oil	**65.0**
Petrolatum	**12.0**
Paraffin	**18.0**
Cetyl alcohol	**1.0**
Spermaceti	**4.0**

ADVANCING THERAPY

Penicillin Ointment for Impetigo

Dermatological cases formed 53 per cent of the sick call at the tropical station at which W. B. Brett (*U. S. Naval Med. Bull.* 46:1439, 1946) was stationed. Of these, a large proportion was impetigo, secondary to prickly heat or due to the combination of excessive perspiration plus uncleanliness. Early lesions were treated as follows: New vesicles were broken with cotton applicators dipped in 10 per cent silver nitrate solution. Next, either 5 per cent ammoniated mercury or penicillin ointment was applied; all crust being removed prior to ointment application. It was found that greasy ointments were unsatisfactory in the hot climate; water-soluble ointments being preferred. The penicillin ointment, made as follows, was more effective when applied at least three times daily:

Tragacanth	20 Gm.
Glycerine	200 cc.
Water	200 cc.

The tragacanth was mixed with 30 cc. of glycerine and added to the remainder of the glycerine. To this 100 cc. of water were added and mixed. To the remainder of the water 100,000 units of penicillin were added and the whole thoroughly mixed.

Anti-Diarrhea Preparation

In answer to the Narcotic Bureau's request for conservation of narcotics, R. W. Englehardt (*J. Am. Pharm. Assoc.*, Pract. Pharm. Ed. 7:383, 1946) has developed the following preparation to replace the favorite combination of paregoric and milk of bismuth for cases of diarrhea:

Pectin	8.00
Glycerine	10.00
Syrup	40.00
Benzoic acid	1.00
Water, hot	100.00
Amyl acetate	0.30
Alcohol	3.00
Amaranth solution	0.67
Magma bentonite	1,000.00

Rub the pectin with the glycerine, add the syrup, then incorporate quickly, with vigorous sitrring, the benzoic acid which has been dissolved in the hot water. To this add the amyl acetate dissolved in the alcohol, then add the amaranth and finally the bentonite. The product may be homogenized, but this is not necessary. As used in the Rochester State Hospital, one or two ounces of the preparation is given orally after each bowel movement.

Water With Meals vs. Constipation

In the *American Journal of Digestive Diseases* (13:78, 1946), J. A. McKinney points out that the clinical dictum that water should not be taken with meals has been repeatedly disproved. On the contrary, water taken at meal-time stimulates the activities of the saliva and the gastric juice and favorably influences digestion and the absorption of food in the intestines. Observations were made on 477 patients to determine the relationship of water intake to symptoms of constipation. Of these, 352 patients (107 male, 245 female) were constipated, took laxatives and did not take water with their meals. When instructed to discontinue all medication and to take 2 or more glasses of water along with their food, 230 of these patients cooperated. All were found to be having daily bowel movements when examined later; 72 were followed for one to seven years and remained well in this respect. Constipation remained unchanged in the uncooperative patients, who continued to use laxatives and enemas.

Combined Therapy in Chronic Hepatitis

The superiority of combined dietary and vitamin therapy in the treatment of chronic hepatitis is indicated in the report of L. M. Morrison (*Ann. Int. Med.* 24:465, 1946). In his investigations a controlled series of 62 patients with chronic hepatitis was divided into three treatment groups: (1) Methods used in 1938, (2) modified Patek regime and (3) intensive combined therapy. The third method consisted of maximum protein (three meat servings daily plus skin milk), high carbohydrate, low fat diet, with daily injections of 5 cc. of a whole liver extract reinforced with highly potent vitamin B complex, plus oral vitamin B complex and multiple vitamin capsules, together with 2 Gm. each of methionine and choline daily. Over the two-year treatment period this method resulted in a sharp reduction in mortality and length of disability as compared with results in the control group (1938-40). Remission of all signs and symptoms was increased from 10 to 64 per cent in the compensated patients: from zero to 34 per cent in those with ascites. Striking improvement and recovery were observed in cases formerly considered hopeless.

Ethyl Carbamate in Leukemia Treatment

In a comparison with deep X-ray therapy for treating leukemia, often called "cancer of the blood," E. Paterson and her associates (*Lancet* 1:677, 1946) made a study of the effects of ethyl carbamate (urethane) in 19 cases of myeloid leukemia and 13 of lymphatic leukemia observed for from five weeks to eleven months. In the most favorable cases the leukocyte count decreased to normal levels, the differential count approached a more normal pattern, the enlarged spleen and lymph nodes decreased in size and there was a rise in the hemoglobin content. These effects were remarkably similar to those obtained with X-ray therapy. There is no indication that permanent benefit may result from the use of ethyl carbamate in either myeloid or lymphatic leukemia. The cases are too recent to judge the effect of treatment on length of life. The palliative effect is in many cases very great.

Treatments for Migraine

In the *Canadian Medical Association Journal* (54:588, 1946), I. J. Patton describes the results obtained with neostigmine bromide in the treatment of 6 patients with histories of migraine of from eight

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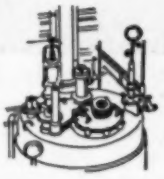

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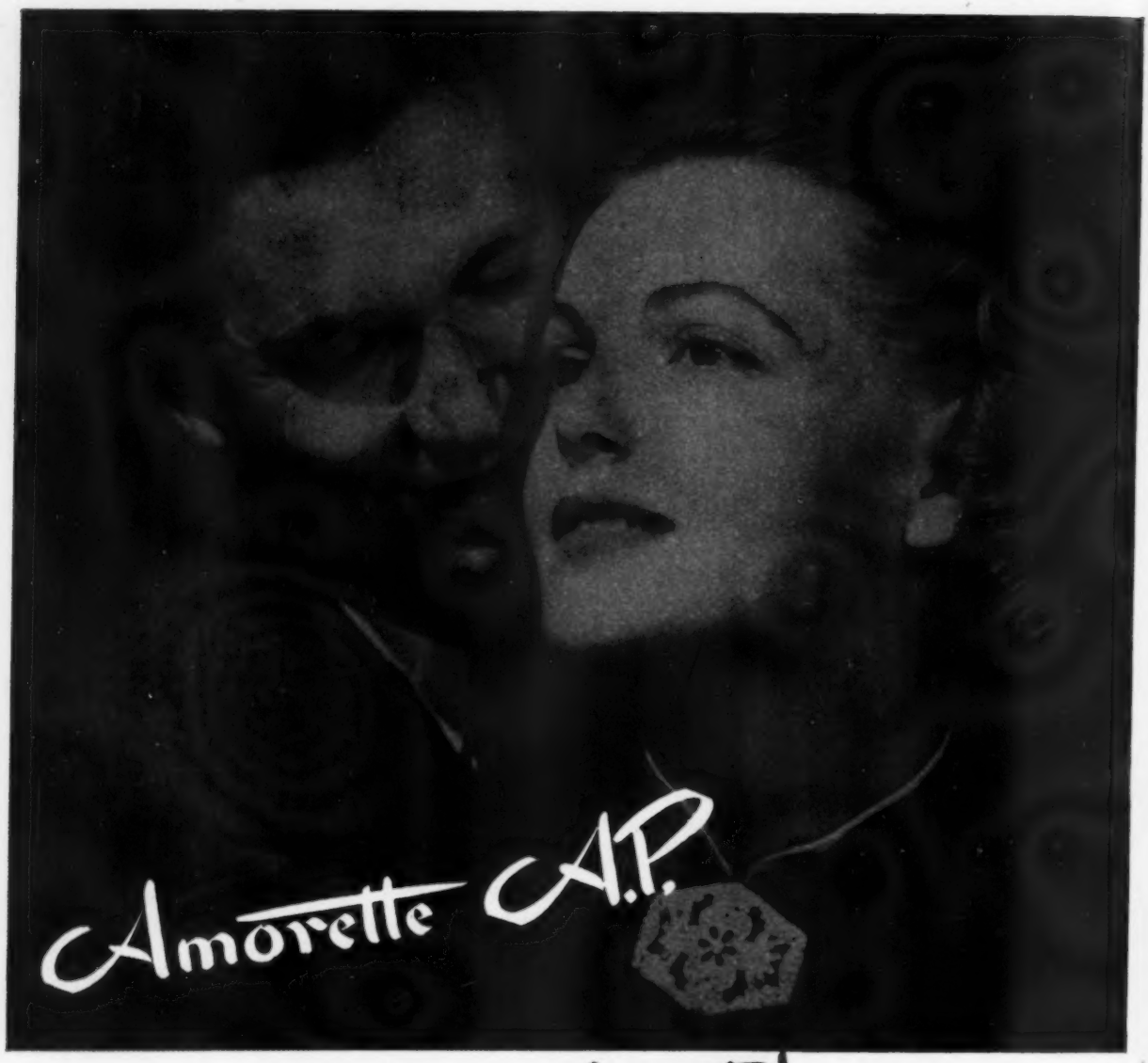

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to twenty-five years' duration. Two reported moderate improvements, 3 great improvement and 1 declared it was "a miracle." One 15 mg. tablet of neostigmine bromide is dissolved in an ounce of distilled water. The patient is instructed to take it three times daily, beginning with one drop and increasing by one drop each dose until taking ten drops three times a day. After continuing at this dosage for one week the patient drops to a maintenance dose of ten drops twice weekly and if signs of impending headache are noticed takes an additional fifteen to twenty drops.

In another report in the same issue (p. 589), C. B. Smith comments on the results of a trial of riboflavin medication on 19 patients with migraine headache. The patients were placed routinely on 5 mg. of riboflavin three times a day; after several months of this medication the dose was adjusted to individual requirements. All but 1 of the patients were cured. The patient in whom the treatment failed admitted irregularity of medication.

Penicillin for Scarlet Fever Therapy

In a report in the *American Journal of Medical Sciences* (211:417, 1946), B. B. Brees and his associates present the results obtained in treating 118 cases of scarlet fever with varied penicillin dosages. In 76 per cent of the cases the initial throat culture was positive for beta hemolytic streptococci. Three dosage schedules were utilized: 240,000 units over a three day period, 360,000 units over a six day period and 480,000 units over an eight day period. The clinical response to penicillin was good in all cases. The incidence of complications was highest (31 per cent) in the 240,000 unit series and lowest (6 per cent) in the 480,000 unit series. The rate of recurrence of positive throat cultures for the organism was highest (77 per cent) in the 240,000 unit series and lowest (8 per cent) in the 480,000 unit series. The authors conclude that the use of 480,000 units of penicillin over an eight day period is a satisfactory method for the treatment of scarlet fever and for preventing a beta-hemolytic streptococcus carrier state.

PABA in Endemic Typhus

Evidence gradually is accumulating that para-aminobenzioc acid (PABA) is effective in infections induced by several types of rickettsial organisms. Thus, promising results have been obtained clinically with para-aminobenzoic acid in louse-borne typhus and in spotted fever. These results and the experimental finding in murine typhus suggested to P. K. Smith (*J.A.M.A.* 131:1114, 1946) that this material might be of value in human endemic typhus. With no attempt to select the cases a series of 29 patients with endemic (murine) typhus were given 2 Gm. of para-aminobenzoic acid every two hours until their temperatures returned to normal. The number of days of fever in patients receiving this treatment was, on the average, significantly less than in a comparable series of patients not receiving the drug. No toxic effects that could be attributed to para-aminobenzoic acid were observed. Hence, it is recommended that a thorough clinical trial be made of this drug, using a larger number of patients under more rigidly controlled conditions. Such trials should include appropriate studies designed to detect any early toxic effects.

New Anti-Vaginitis-Cervicitis Treatment

Having run the gamut of medicaments for the control of infections in vaginitis and cervicitis, S. L. Siegler (*Am. J. Obstet. & Gynec.* 52:1, 1946) set up a series of standards for the ideal antiinfective agent for these conditions. To meet this ideal he developed an acid jelly, containing sulfathiazole in actual solution, in a polyethylene glycol base. To facilitate the use of this preparation by the physician and to assure better co-operation on the part of the patient, a convenient, single-dose, disposable paper applicator was devised for use with the sulfathiazole acid jelly.

The new preparation was tested and compared with other types of treatment on 230 cases of vaginitis and 152 cases of cervicitis. Use of the jelly resulted in excellent control of vaginitis of various origin in 93 per cent of the cases treated, and in permanent cure in 83 per cent. Use of the jelly alone has given good results in the management of cervical infection in 22 per cent of the cases treated. It was also noted that the period of convalescence can be markedly shortened, and annoying symptoms reduced by using the jelly before and after such procedures as conization, coagulation, cautery, plastic repairs and other intravaginal surgery. Healing was complete, with this new product, within an average time of five weeks, with a minimum of sequelae.

"BAL" in Arsenic and Mercury Poisoning

In a report prepared by the Council on Pharmacy and Chemistry (*J. A. M. A.* 131:824, 1946), it is pointed out that during the war 2, 3-Dimercaptopropanol was developed as an antidote to the arsenical blister gases. More commonly known as "BAL" (British Anti-Lewisite), it was intended for the local decontamination and treatment of the skin and eye but was subsequently found to be effective in the systemic treatment of severe arsenic poisoning occurring either after exposure to the arsenical blister gases or as a complication of arsenotherapy.

Of particular interest is the possible use of "BAL" following the administration of arsenicals in the treatment of syphilis. To date, reports of more than 200 cases of various types of arsenical poisoning treated with "BAL" have been received. The results indicate that the danger of complications following the use of arsenicals may be greatly reduced by the early administration of "BAL" in adequate dosage. "BAL" has also been used in a small series of cases of acute mercury poisoning with promising results. Too few cases have been treated to allow a forthright recommendation regarding optimum dosage of "BAL", but experience appears to indicate that mercury poisoning is more difficult to treat and requires larger dosages than arsenic poisoning. As yet there are no data available on the usefulness of "BAL" in poisoning due to other metals.

It is emphasized that the successful treatment of arsenic or mercury poisoning with "BAL" depends on the institution of treatment at the earliest possible moment before irreparable tissue damage has occurred and on the use of adequate amounts of "BAL" at frequent intervals. Other supportive measures should always be given in conjunction with "BAL" therapy.

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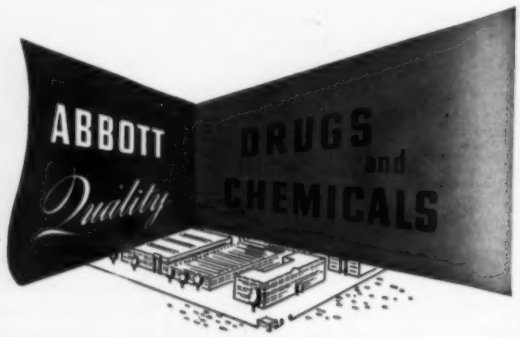

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Compounder's Corner

Protective Ointment

According to an item in *The Practitioner* for May, 1946, the following ointment is used at University College Hospital, London, for protecting the skin against water or watery discharges:

Zinc oxide	**10.00**
Castor oil	**53.30**
Wool alcohols	**3.20**
Oleic acid	**1.00**
Stearic acid	**1.25**
Lime water, to make	**100.00**

This preparation, which is especially valuable for protecting babies' skin against urine, replaces the long popular zinc ointment with castor oil.

Of kindred interest is a cream for application to the hands after washing to prevent chapping. Satisfactory and non-greasy, it is made from:

Powdered tragacanth	**1.0**
Denatured alcohol	**7.0**
Glycerine	**14.0**
Peanut oil	**3.5**
Tincture of benzoin	**2.0**
Water, to make	**100.0**

Fluid for Contact Lenses

One of the most important factors in the comfortable fit of contact lenses is the so-called buffer solution required to prevent irritation to the cornea. In summarizing work done on such solution, H. B. Martin (Dioptric Rev. *5:75, 1946*) *states that the following sodium chloride-sodium bicarbonate solution has been found to be best:*

Sodium bicarbonate	**0.813 Gm.**
Sodium chloride	**0.813 "**
Triple distilled water	**100 cc.**

The osmotic pressure of the dilution is equivalent to a 1.4 per cent solution of sodium chloride.

Suntan Cosmetics

In his discussion of suntan cosmetics F. Winter (*S. P. C.* 19:729, 1946) notes that erythema and burns are merely the result of excessive exposure to sunlight accompanied by deficient or faulty formation by the skin of the protective brown pigment that, under optimal conditions, imparts to the skin an attractive and uniform tan. Exposure at high altitudes, or to reflection from snow and ice, is also apt to provoke violent erythematic reactions.

Sun-screening agents, or "chemical parasols," act by absorbing the most harmful band of heat rays and changing their frequency. However, enough sunlight should be admitted to permit the gradual accumulation of the skins' natural brown pigment. Apart from these valuable screening agents, other specialized cosmetic materials find application as artificial tanning and coloring agents, as protectives and emollients, and the like. Primitive forms of protection are preparations based on bole, ochre and other pigments. In this connection, Winter comments that the considerable screening effect obtainable by means of zinc oxide appears to be very little known. Protective chemical and mechanical agents are often combined. There are numerous chemical protective agents and a few of the more important are discussed. Data regarding the *percentages* required to give maximum and partial protection are summarized in the following table:

Sun-screen	*Maximum protection*	*Minimum protection*
Quinine bisulfate	**4**	**1-2**
Quinine sulfate and hydrochloride	**6**	**2-3**
Quinine tannate	**4**	**2**
Quinine oleate	**5**	**2**
Umbelliferone	**4-5**	**1.5-2**
Methylumbelliferone	**3-5**	**1.5-2**
Methylacetoumbelliferone	**3-5**	**1.5-2**
Esculin	**3-5**	**1-2**
Esculetin and Methylesculetin	**3-5**	**2**
Daphnetin	**4**	**2**
Menthyl salicylate	**6-8**	**3**
Oxyquinoline sulfate (Quinosol)	**2**	**0.5**
Peru balsam and its essential oil	**2-3**	**0.5-1**

While quinine derivatives are frequently used, the idiosyncracy to which some people are subject may at times provoke irritation.

According to Winter aqueous vehicles, with the exception of tannin lotions, are seldom used for anti-sunburn preparations. Fatty vehicles, in which petroleum jelly plays a major part, are the general rule, and form the basis covering the epidermis with a protective fatty film. Water-in-oil emulsions are also used, and less frequently oil-in-water emulsions. Illustrative formulas for suitable bases for suntan preparations are offered as guides to compounding, as follows:

Emollient Oil Base

Yellow liquid paraffin	**150**
Lanolin, anhydrous	**2**
Cocoa butter	**2**
Cetyl alcohol	**3**
Preserved olive oil	**50**

Emulsified Oil Base

Yellow liquid paraffin	**40**
Yellow petroleum jelly	**10**
Cetyl alcohol	**2**
Tepid water	**40**

Hydrated Cream Base

Beeswax, white	**50**
Spermaceti	**10**
Cocoa butter	**30**
Lanolin, anhydrous	**40**
Liquid paraffin	**250**
Petroleum jelly	**50**
Cetyl alcohol	**25**
Water, hot	**75**
Borax	**5**

Salve-Type Base

Petroleum jelly	**20**
Lanolin, anhydrous	**15**
Beeswax, yellow	**30**
Liquid paraffin	**60**
Cocoa butter	**20**
Peanut oil	**20**

The following formulas are suggested as experimental bases for making anti-sunburn or protective "parasol" suntan creams:

1

Esculetin	**3**
Water	**15**
Alcohol	**10**
Peru balsam	**3**
Zinc oxide	**20**
Cetyl alcohol ointment	**49**

2

Esculin	**2**
Quinine bisulphate	**3**
Water	**40**
Alcohol	**10**
Lanolin absorption base	**45**

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3

Benzyl anthranilate	**1.0**
Quinine oleate	**2.5**
Olive oil	**20.0**
Beeswax	**10.0**
Cold cream	**66.5**

Note: For Nos. 1 and 2 the protective agent is dissolved in the alcohol and water, then added to the remaining ingredients. For No. 3, dissolve the oleate and the anthranilate in the olive oil, then mix together with the rest of the constituents.

So-called "tanning" oils of this type have no direct tanning effect, save that the fatty film permits safe exposure to the sun's rays, and thus facilitates the gradual development of a uniform tan.

In discussing tanning preparations, Winter considers those containing tannin as perhaps the most important of this group of simulatory preparations. These are illustrated by the formulas below:

Tannin Cream

Lanolin, anhydrous	**20**
Petroleum jelly	**65**
Cetyl alcohol	**5**
Tannin	**10**
Water	**12**

Melt the fats and waxes, dissolve the tannin in the water. Add to the fats and stir till cold.

Tannin Lotion

Tannin	**8.00**
Water	**92.00**
Camphor	**0.05**

The skin is rubbed with this lotion and left to dry. The lotion forms a protective film on the skin.

Suntan make-up is chiefly of a simulatory character, although to some extent its rather heavily pigmented character is also apt to exert a protective effect. A salve-like preparation contains:

Deep bole	**150**
Burnt sienna	**50**
Petroleum jelly	**60**
Liquid paraffin	**60**
Lanolin, anhydrous	**20**
Ceresin, white	**15**

A basic suntan powder may be made from:

Deep bole	**200**
Deep ochre	**50**
Burnt sienna	**50**
Powder base	**350**

When considering remedial preparations, Winter observes that the treatment of solar inflammation (erythema, solar eczema) properly belongs to the field of pharmaceutical preparations, although minor irritations can be effectively treated with calamine lotion and similar medicosmetics. The following preparations also give relief to the painful irritation provoked by sun-burns.

Thymol Oil

Thymol	**1**
Olive oil, preserved	**99**

Thymol Iodide Ointment

Thymol iodide	**0.5**
Ether	**2.0**

Dissolve, then add to the following fat mixture:

Lanolin, anhydrous	**30**
Liquid paraffin	**7**
Petroleum jelly	**50**
Water	**9**

Dusting Powder

Talcum	**970.0**
Menthol	**1.5**
Boric acid	**30.0**

Winter stresses that petroleum jelly or fatty creams should *not* be applied to blistered skins. Curative treatment begins by generous powdering of the affected part with talcum or other powder and is continued until the irritation ceases. It is only then that a light cream may be applied to relieve the tightness of the skin.

Importance of Abrasives in Dentifrices

A dentifrice is an accessory to the tooth brush in cleaning the surfaces of the teeth. As such, the efficiency of a dentifrice is a measure of its ability, in routine daily brushings, to maintain accessible dental surfaces free of accumulations that dull the natural luster of enamel and render the oral cavity unhygienic. In the study reported by H. B. McCauley and his associates (J. Am. Dent. Assoc. *33: 993, 1946*) *an attempt has been made to determine the comparative efficacy of a representative proprietary powder and paste dentifrice as adjuncts to the tooth brush, with particular emphasis on the importance of the abrasives. Using 23 men and 24 women as subjects, these tests were founded on the accumulation of a pigmented pellicle during twelve days of twice-daily two-minute tooth brushing, and the removal of twenty-four-hour deposits of mucinous film and materia alba by a single two-minute brushing. Two per cent of persons using the powder and 8 per cent using the paste developed pigmented pellicles in the twelve-day test. Using the control dentifrice of tap water, 41 per cent produced similar deposits. Complete removal of twenty-four hour accretions by two-minute brushings occurred in 74 per cent of subjects using the powder; in 79 per cent using the paste, and in 44 per cent using the water. From these findings, it appears that a dentifrice, to be satisfactory, must possess some degree of abrasiveness, and that the use of an insufficiently abrasive dentifrice favors the formation of a pigmented film.*

Wave Set Formulas

An item in the *Chemist and Druggist* (146:345, 1946) suggests the following two formulas as being suitable for making wave set products:

I

Gum tragacanth	**1.2**
Alcohol	**15.0**
Glycerin	**2.0**
Water	**83.0**
Preservative	**sufficient**

II

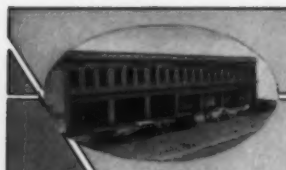
Gum acacia	**2**
Borax	**1**
Alcohol	**20**
Water	**77**
Preservative	**sufficient**

Zinc Chloride Mouth Wash

An improved zinc chloride mouth wash is offered in the July, 1946 issue of the New Jersey Journal of Pharmacy, *as follows:*

Zinc chloride	**1.00 Gm.**
Menthol	**0.50 "**
Oil of cinnamon	**1.30 cc.**
Oil of cloves	**0.50 cc.**
Solution of formaldehyde	**0.50 cc.**
Saccharin	**0.40 Gm.**
Naphthol yellow S	**0.24 "**
Alcohol	**45.00 cc.**
Talc	**15.00 Gm.**
Diluted hydrochloric acid	**1.00 cc.**
Distilled water, to make	**1,000.00 cc.**

Dissolve the zinc chloride in a solution of the dilute hydrochloric acid and 25 cc. of distilled water, and add this to 800 cc. of distilled water. Dissolve the oil of cinnamon, oil of cloves, menthol, solution of formaldehyde and saccharin in 45 cc. of alcohol, and mix this with 15 m. of talc. Add to this, with constant stirring, the previously prepared zinc chloride solution, shake the resulting mixture occasionally during 24 hours, and filter. Add distilled water to make one liter and add the color



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Grass Oils from Guatemala

Citing a recent study by G. S. Quate, a note in *Foreign Commerce Weekly* for August 10, 1946 points to the fact that the production of volatile oils from highly scented grasses has in recent years become a part of Guatemala's agricultural economy. Each year a third of a million pounds of this valuable product are exported from the country. This agricultural industry, relatively new to the Americas, has been one answer to the local farmer's need for an original cash crop in addition to coffee, which is the main source of income for Guatemala. In the Republic of Guatemala the sale of essential oil from citronella and lemongrass has provided means for the reclaiming of a number of insolvent or abandoned plantations. It has given employment to hundreds of farm families at better-than-average wages, and it has become a new source of foreign exchange. Recent wartime profits have been high.

Now the enterprising group who established the industry at considerable risk are reinvesting their earnings, plowing this new cash back into the land in an effort to improve production methods and reduce costs to a point where they may successfully compete with the Far-Eastern producers who previously had exclusive control of this interesting agricultural pursuit.

Preparation and Uses of Ketones

Common use is made of aldehydes as base perfumes and in flavoring, says a writer in the July, 1946 issue of *The Perfumery and Essential Oil Record*. Less known, but of almost equal value are some of the ketones. In some cases, these give a distinctive odor or taste and their trial is certainly worth while. Such ketones as amyl methyl ketone, $CH_3(CH_2)_4\ COCH_3$, hexyl methyl ketone, $CH_3\ (CH_2)_5\ COCH_3$ and amyl ethyl ketone, $CH_3\ (CH_2)_4\ COCH_2$, are readily prepared for use in experiments. Amyl methyl ketone is colorless, has a boiling range of 149°-152° C., and an odor of pears. It is soluble in alcohol. Hexyl methyl ketone is also colorless, boils at 172°-173° C. and because of its mignonette odor may form the basis of this perfume or be used with other synthetics in a floral compound. Amyl ethyl ketone is used in synthetic lavender. It is prepared by passing a mixture of caproic and propionic acids over thorium oxide at about 400° C. It boils at 169-170° C. Methyl heptenone $(CH_3)_2\ C : CHCH_2CH_2COCH_3$, has not been used to any extent in perfumes on account of its great similarity of odor to amyl acetate. It boils at 172°-174° C. and is prepared by oxidation of geraniol and citral by chromic acid or by heating citral with potassium hydroxide. Heptyl methyl ketone, $CH_3\ (CH_2)_6\ COCH_3$, has a pleasant odor of rue and a boiling range of 190°-195° C. With methyl nonyl ketone it makes up about 80 per cent of Algerian oil of rue, but forms only a small proportion, about 5 per cent of the European rue oil. A ketone with distinct aromatic odor is trimethyl hexanone, $C_9H_{18}O$. This is obtained naturally in the oil from labdanum resin and has also been synthesized. Citrylidenecocetone, $(CH_3)_2\ C : CHCH_2$-$CH_2C(CH_3) : CHCH : CHCOCH_3$, is a viscous oil resembling citronella in odor and is used as a basis of perfumes depending upon either oil of lemongrass or oil of lemon.

These and others of the straight chain aliphatic type ketone may be prepared without too great trouble, while of more difficult preparation are the cyclic ketones derived from cyclocitrylidene, the benzene ketones and the terpene ketones. These, too, possess characteristic odors and may be used in synthetic bases. It has been found that the addition of a synthetic compound to a naturally occurring essential oil often gives character and strength to the resultant compound and such preparations are finding favor.

Spanish Eucalyptus Oil

According to a note in *The Perfumery and Essential Oil Record* (37:179, 1946), supplies of eucalyptus oil are short at present and, when available, are mostly of Australian origin. However, development of this oil in Spain is proceeding quite rapidly, and it seems likely that small quantities of Spanish eucalyptus oil will be available in the near future. The crude Spanish oils are yellow colored and are soluble in six to eight parts of 80 per cent alcohol. The cineole content ranges from 60 to 70 per cent, and this is increased in the refined oil by distillation; the official (British) standard may be reached by this means. Fractional distillation gives a colorless oil, soluble in three volumes of 80 per cent alcohol and with a cineole content of up to 85 per cent.

Lavandulol, New Monoterpenic Alcohol

It has been known for a long time that oil of lavandula veva contains various monoterpenic alcohols in free or esterified form, like l-linalool, geraniol and d-borneol. In the work reported by H. Schinz (*Perf. & Essent. Oil Rec.* 37:167, 1946), three more alcohols belonging to the C_{10} group have been isolated from this oil. These include: l-lavandulol, d-citronellol and cumin-alcohol.

Lavandulol proves to be a new compound and is therefore particularly interesting. It is easy to understand why this alcohol escaped the notice of earlier investigators of lavender oil, since in this oil it is mixed with six other alcohols having the same number of C-atoms. Lavandulol is isolated as follows: the oil mixture containing the alcohols is heated with phthalic anhydride and the mixture of primary and secondary alcohols obtained upon saponification, is fractionally distilled *in vacuo*. The new compound is then found in the first fractions of the monoterpenic alcohols. It can be isolated out of these in a very pure state by means of its allophanate. The new alcohol occurs free and esterified in lavender oil. Its pure preparation from the mixture of the free alcohols is difficult because of the simultaneous presence of borneol which has but a slightly higher boiling point. It is easier to separate from the alcohols obtained by saponifying the esters, which contain no borneol. Recently lavandulol was also isolated from "Essence de Lavandin," a cross between lavender and aspic.

Lavandulol is a primary, doubly unsaturated alcohol, $C_{10}H_{18}O$ and shows great similarity to geraniol. Density and refraction of the two isomeres are very close to each other. The most readily prepared derivatives of the two compounds, 3, 5-dinitro-benzoate and allophanate have the same melting point (59-60° and 117-118°). Lavandulol differs clearly from geraniol by its boil-

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ing point which is 15° lower, by its optical activity and by the fact that it gives no crystalline additional compound with calcium chloride.

Lavandulol is more stable than geraniol. Exposed to air, it resinifies perceptibly slower. It has been proved stable against phthalic anhydride at 200°; it is merely converted into the phthalic ester from which it may be recovered unchanged, whereas geraniol, similarly treated, loses water and undergoes complete decomposition. Upon hydrogenation with platinum oxide in glacial acetic acid, two molecules of hydrogen are added and one obtains tetrahydrolavandulol, whereas the reduction of geraniol under similar conditions does not stop upon saturation of the two double bonds but leads to about 1/3 of hydrocarbon. Lavandulol like geraniol can be cyclized. This reaction is best produced by formic acid at 100°, while geraniol is completely destroyed under these conditions. Here ring closure is best achieved by the less vigorous phosphoric acid. The allophanate of cyclogeraniol and cyclolavandulol have likewise very similar melting points.

The smell of the free alcohol is similar to that of geraniol, only rather more "herby." Its acetate, on the other hand, has a strong and strikingly fresh smell, which may well be an important factor in the general character of lavender fragrance. In this it differs markedly from the less interesting geranylacetate.

Disinfecting Action of Essential Oils

As is noted in the *Perfumery and Essential Oil Record* (37:199, 1946) one of the uses to which essential oils are put, apart from their uses in perfumes and flavors, is disinfection, for it has always been believed that essential oils possess anti-bacterial properties. One simplified theory is that many oils contain terpenes, $C_{10}H_{16}$, which in the presence of water are oxidized to form hydrogen peroxide. Thus oils which contain terpenes should possess greater antiseptic properties than those oils without them. This is not borne out in practice. Oils from cinnamon and cloves are among the most powerful antiseptic oils, and they do not contain terpenes but eugenol, a known powerful germicide.

Koch, an original worker on air-borne infections, has recommended the spraying of ethereal solutions of oils in hospital wards. Among essential oils used in disinfection, one must also include thymol and menthol both of which are used in lozenges and also provide an advantageous analgesic action. Attention is also drawn to the oils of cinnamon, peppermint and clove; these being used in many food products. In line with the anti-bacterial action of essential oils, it is pointed that the aromatic castor oil emulsion of the British Pharmacopoeia Codex containing essential oils is usually found to require no further preservative, and it is commonly experienced that cosmetic emulsions containing essential oils require little or no further preserving. It seems not impossible that a mixture of oils could be made which would sufficiently preserve as well as perfume toilet preparations.

Removing Terpenes from Essential Oils

The best conditions to obtain the separation of terpenes from the oxygenated compounds contained in essential oils have been examined by P. Leone (*Riv. ital. essenze profumi* 28:5, 1946) and a suitable fractional distillation apparatus is described. Thus, from 5 kilograms of natural lemon oil, containing 5.35 per cent of citral, there was obtained by repeated fractional distillation at 25 mm. pressure 4.440 kilograms of terpenes and 401 Gm. of oil free from terpenes (but not from sesquiterpenes), the oil having the following characteristics:

Specific gracity.....**0.8957 to 0.8977**
Specific rotation.....**−7° 55′ to −8° 10′**
Citral content..**40.5 to 43.2 per cent**

Sesquiterpenes were eliminated by a second fractional distillation at 20 mm. pressure and collecting only the fraction having a specific rotation of from 0° to −4°. The oil thus obtained had the following properties:

Specific gravity..... **0.8999**
Specific rotation..... **−1° 50′**
Citral content.....**60.50 per cent**
Solubility in 70 per cent alcohol..... **1 to 1.5 vols.**

The yield was 5.36 per cent. of the crude oil. It is suggested that the separated terpenes may be used as a turpentine substitute.

Determination of Some Official Aldehydes

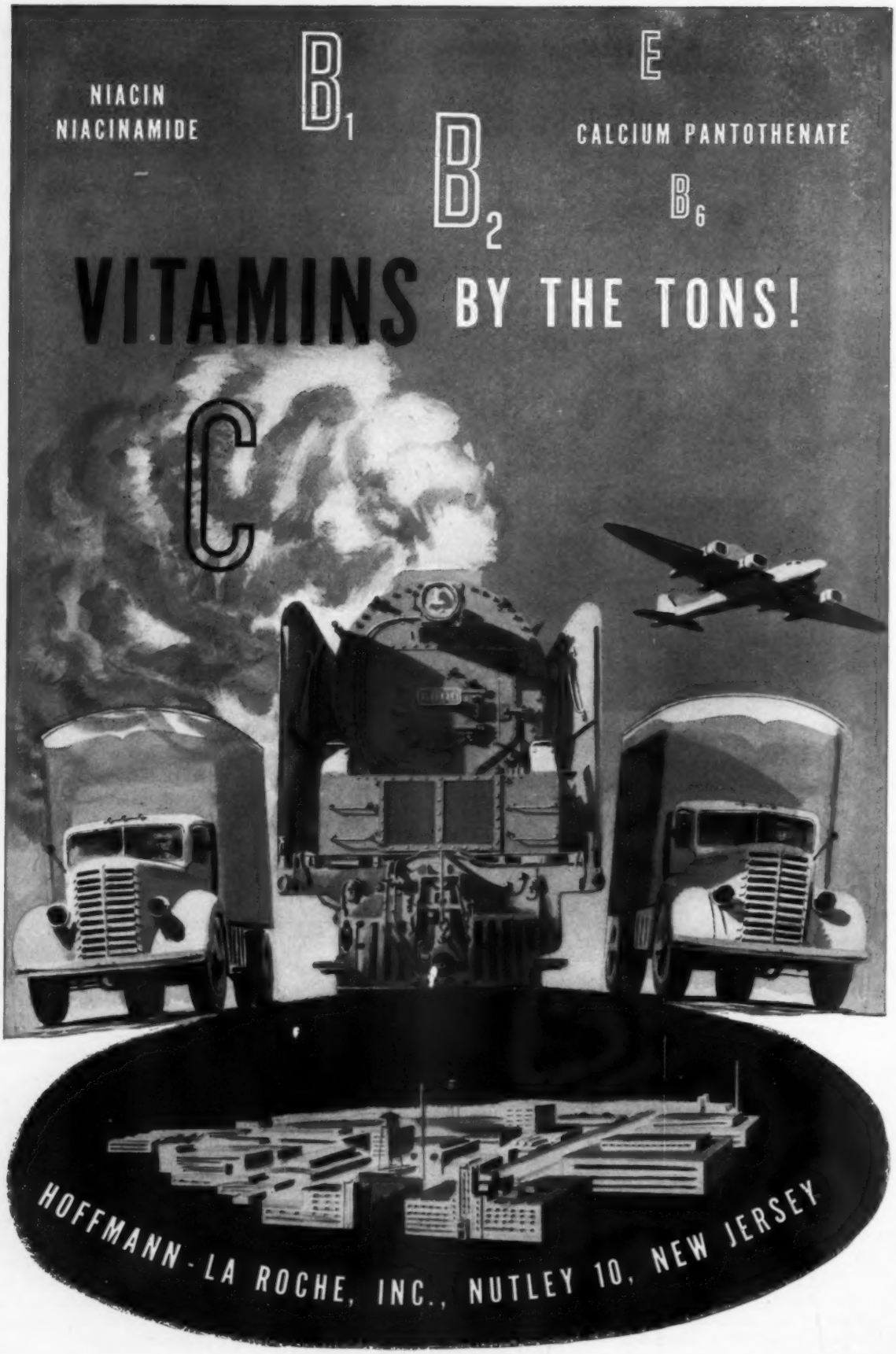
In investigations to find the most efficient method for the determination of official aldehydes, such as benzaldehyde, cinnamaldehyde and vanillin, M. E. Martin, K. L. Kelly and M. W. Green (*J. Am. Pharm. Assoc.*, Scient. Ed. 35:220, 1946) made a study of volumetric oxime methods and gravimetric methods using 2, 4-dinitrophenylhydrazine as a precipitating agent. Vanillin, the purity of which was determined by a methoxy determination and melting point tests, was used as the reference standard. From their findings, it was concluded that the volumetric, hydroxylamine method adopted for the forthcoming national Formulary VIII gave the most satisfactory results. It should be pointed out that the N. F. VIII method is the procedure given for the assay of cinnamaldehyde in the Third Supplement to N. F. VII and more recently adopted as the official method of assay for benzaldehyde, cinnamaldehyde, and benzaldehyde in bitter almond oil in N. F. VIII.

New Ester from Sumatra Benzoin

In a sample of Sumatra benzoin, derived from *Styrax paralleloneurus*, L. van Stallie and A. Q. Harmsnia (*Pharm. Weekbl.* 81:123, 1946) confirmed the presence of benzoic acid, benzoin, and cinnamyl alcohol, while the presence of coniferyl alcohol was probable. In addition, a new, well-crystallized ester of cinnamic acid was isolated. It had a melting point of between 113° to 155° C. This ester had a molecular weight of about 300, and formula $C_{20}H_{21}O_3$. Characteristic reactions are the formation of a red color on warming with phloroglucinol and hydrochloric acid; of a blue color on warming with hydrochloric acid; and of a red color in the acid layer when a chloroform solution is shaken with an equal volume of sulfuric acid.

Vanillic Acid Esters as Preservatives

According to *The Perfumery and Essential Oil Record* (37:200, 1946), esters of vanillic acid are reported as being the most powerful preservatives yet found, particularly against themophilic bacteria and molds. It is suggested that their non-toxicity may enable them to be used in food products. Their efficiency is said to be greater up to the butyl ester. For those who may be interested, experimental quantities of the esters may be made as follows: Vanillic acid is dissolved in anhydrous alcohol and the solution saturated with hydrogen chloride. This is then boiled under reflux and eventually the ester will crystallize out on cooling and may be further purified by recrystallization from the parent alcoohl.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PURCHASING DEPARTMENT

Strong Price Trend in Fine Chemicals. Arrival of Menthol and Agar Agar from Japan Features Trading

The price trend in the market for drugs and fine chemicals during the early part of the trading period under review was decidedly strong. The advances came in acetone, cod liver oil, cocoa butter, fishliver oils, isopropyl acetate. During late trading menthol and mercury turned easy.

Saccharin, antipyrine, aminopyrine, methyl salicylate, and theobromine continued in a stringent position. Actually, imported theobromine has been offered at $9.00 a pound—double the usual domestic price. Caffein and synthetic camphor offerings are scarce. Some price resistance has been developing in the carnauba wax market but quotations are holding firm. The container shortage has resulted in some slowing of activity in waxes.

Glycerin remains as one of the commodities most difficult to obtain and producers are considering allocation distribution to hospitals, pharmaceutical houses, and other preferential categories. Streptomycin is moving steadily via the CPA and penicillin sales are at a high level. Fully two-thirds of the latter drug is being exported, but producers are not aware of the recent construction of facilit es in Holland, and the initiation of a Swedish unit, and the effect it may have on overseas markets.

Agar and Menthol Imported from Japan

The Reconstruction Finance Corporation has announced that its subsidiary, the U. S. Commercial Company, has received from Japan 460 bales of agar of 132 pounds net per bale, 441 cases of refined menthol crystals of 60 pounds net per case, 160 cases of refined camphor tablets of 50 kilos net per case, and 140 cases of refined camphor powder of 50 kilos net per case.

These products were imported from Japan to the United States pursuant to arrangements entered into between the U. S. Commercial Company, the Department of State, the War Department and the Supreme Commander, Allied Powers (SCAP) to handle Japanese exports.

The agar has been graded by the Japanese Agar-Agar Exporter's Association as strip No. 1, fair average quality. Examination and confirmation of the grade and quality will be made by experts from the trade to be selected by the U. S. Commercial Company.

OCTOBER PRICE CHANGES

UP

Balsam Tolu $1.70
Belladonna leaves $1.25
Bismuth subcarbonate 11c
Cardamom oil $1
Celery oil 50c
Chamomile flowers Roman 10c
Clove oil 5c
Cod liver oil $18 bbl.
Horehound herb 2c
Peppermint oil Nat. 95c
Redist. $1.15
Plantago seed 8c
Senega root 60c
Silver nucleinate 4c
proteinate 2½c
Spearmint oil $6.75
Stramonium leaves 4c
Vanilla beans Bourbon 25c
Wormwood bark oil $5.15

DOWN

Angostura bark 1c
Anise oil 25c
Beragmot oil 35c
Bismuth subgallate 5c
Cantharides Chinese 75c
Caraway oil 50c
Ergot 10c
Ipecac root 25c
Lavender Spike oil 15c
Lemon grass oil 20c
Lime oil dist. $2
Expressed 50c
Menthol Nat. 45c
Petit Grain Oil SA 10c
Pimento Berry oil 10c
Rhubarb root HD 10c
Rosemary oil 10c
Safrol 15c
Sage oil 20c

• **Prices quoted in this section were current on the first of this month.**

Agar Production in New Zealand

New Zealand was reported in August 1946 to have an exportable surplus of 35,000 pounds of refined granulated agar. When extensions to existing plant capacity are completed, the exportable surplus should reach about 50,000 pounds a year.

The collection of seaweed for agar production in New Zealand began in 1942 to compensate for the loss of sources of supply during the war. From 1943 through 1945, 245 long tons (dry net weight) were marketed. Of this total, 56 long tons were sold in 1943, 89 tons in the following year, and 100 tons in 1945.

All the agar seaweed has come from the North Island, but additional beds exist in various areas off the New Zealand coast. Whether or not these new beds will be exploited depends chiefly upon the world price of agar and the availability of labor for collecting.

The price of refined granulated agar packed in 20 pound canisters is $4 a pound f.o.b. New Zealand ports.

Bismuth Preparations Up

Price on major bismuth preparations have been increased by makers following approval by OPA of individual applications for price adjustments. Bismuth preparations are used in the production of ceramics, in medicine (astringent or antiseptic,) luminous paints and enamels, and pharmaceuticals.

Applications filed with OPA for price adjustments were made as the result of the steadily rising cost of metal. The inside price of $1.50 per pound for subcarbonate continues to be quoted by some makers but an increase of 57c a pound was granted one manufacturer to $2.07 per pound. Advances in subgallate range from 4c to 70c per pound to $1.44 to $2.10 per pound while subnitrate has been increased by 11c to 33c per pound to $1.31 to $1.53 depending upon the manufacturer.

Prices Reduced

Penicillin and streptomycin were among the items accorded good-sized

(*Continued on page 703*)

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(CRUDE, POWDERED)

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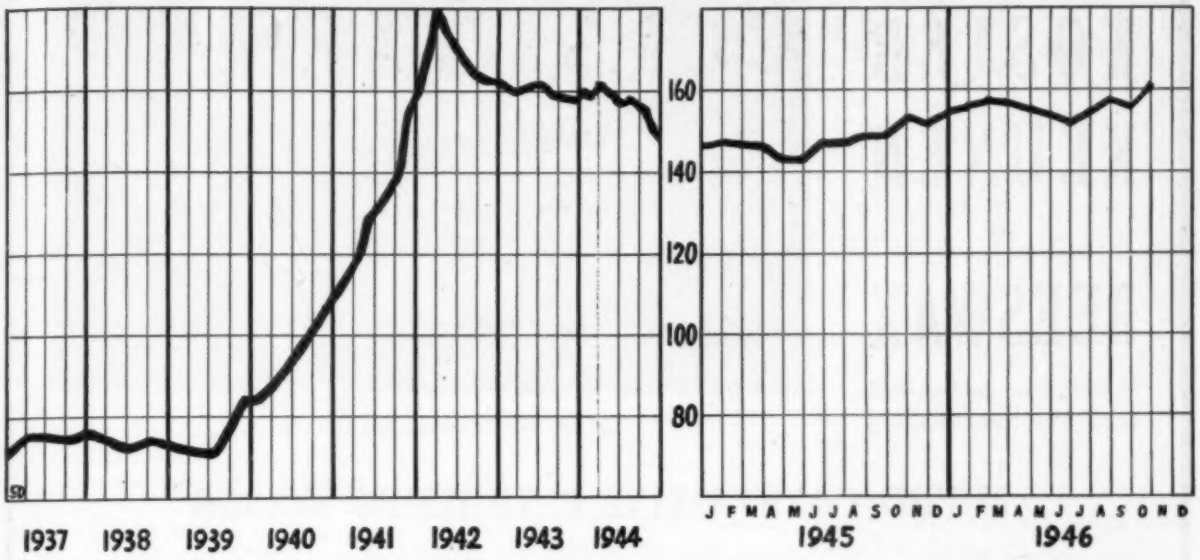
GUM ARABIC BLEACHED
GUM GHATTI
GUM KARAYA (Indian)
GUM TRAGACANTH
GUM EGYPTIAN
GUM LOCUST (Carob Flour)
QUINCE SEED
★
CASEIN

SPECIALTIES:
MENTHOL (Crystals)
★
TARTARIC ACID
★
CREAM OF TARTAR
EGG ALBUMEN
EGG YOLK
BLOOD ALBUMEN
JAPAN WAX (Special)
CANDELILLA WAX

50 Raw Materials—Weighted Price Index. 1926=100.



The price index of fifty commodities for October increased from 156.5 to 161.6.

Imports of Essential Oils Increase. Domestic Oils Featured By Rises in Peppermint and Spearmint

Shortages in many domestic raw materials persisted, creating output difficulties. However, essential oil markets were relieved to some extent by gratifying receipts of foreign oils.

Latest estimates on 1946 production of peppermint oil made by the Bureau of Agricultural Economics are 1,416,000 pounds as compared with last year's 1,502,000 pounds. The estimate on spearmint oil remains at 274,000 pounds, 7 per cent less than the 1945 crop but 61 per cent above the 10 year average. The indicated total production of mint oils is 1,690,000 pounds for 1946—approximately 100,000 pounds less than in 1945, but 478,000 pounds above the average.

It is reported that Spain's essential oil production during 1945 was only one-third of normal prewar annual output. This indicates that importers can expect little aid from that source during the current year.

Total imports of essential oils for the January-June period were slightly higher (3 per cent) than receipts for the comparable 1945 period.

Spearmint Oil Up

Although the excitement in spearmint has subsided, very little oil is obtainable here or in the country. The bulk of this years production is believed to be earmarked for consumption and there does not appear to be any hope of relief in the tight supply position for many months. On spot prices were up to a range of from $12.25 to $14.00 per pound.

Exports of Guaiac Wood Oil

Declared exports of oil of guaiac wood from Paraguay to the United States during the first 8 months of 1946 declined to 2,040 kilograms, valued at $9,837, from 6,990 kilograms, with a value of $34,289, in the comparable period of 1945.

Declared exports of petitgrain oil from Paraguay to the United States also declined in volume, but rose in value. Such exports amounted to 63,780 kilograms, valued at $392,733, throughout the first 8 months of 1946, as compared with 82,044 kilograms, worth $267,114, in the like months of 1945.

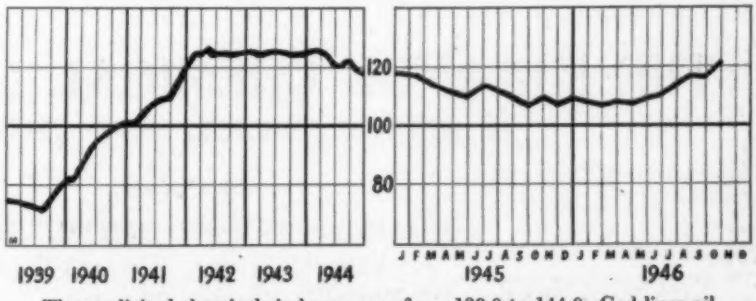
Prospects For Lavender, U.K.

British producers of lavender oil do not anticipate any surplus for export during the present season, according to the British press. A good crop of lavender is expected. Some of the older plants were affected by frost and will give a late crop.

Geranium-Oil Output, Algeria

In 1945, Algeria's yield of geranium oil, the most important aromatic oil produced in that country, was low because of prolonged drought. Although weather conditions during the 1946 season have been more favorable, a smaller area is under cultivation. Two cuttings are certain, however, and a third is possible.

15 Medicinal Chemicals—Weighted Price Index. 1926=100.



The medicinal chemicals index was up from 138.0 to 144.0. Cod liver oil advanced sharply. Menthol and mercury were easier.

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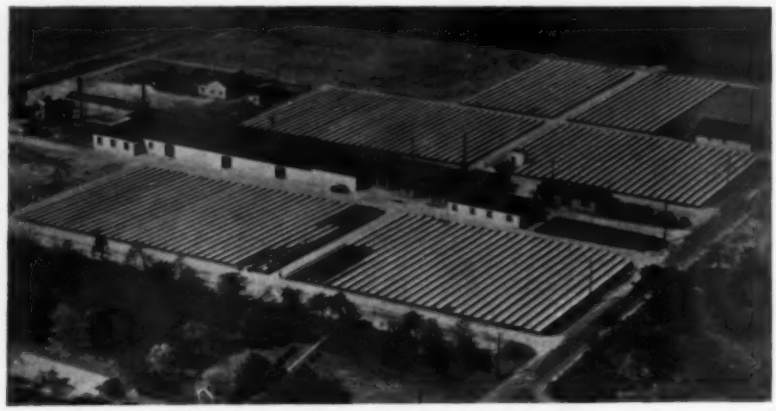

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In addition to the geranium oil which is now being extracted, 6,000 pounds of cedar oil, 1,200 pounds of rosemary oil, and 900 pounds of mint oil have been offered on the market by Algerian producers.

Essential-Oil Exports from Guatemala

Exports of essential oils from Guatemala in 1945 amounted to 333,369 pounds, valued at $616,650. Almost all of these shipments went to the United States. Although the volume of exports was nearly 40,000 pounds less than in the preceding year, the value of shipments was almost twice that in 1944 because of the rise in prices. Exports in 1936 amounted to only 165,120 pounds, with a value of $36,927.

The production of essential oils in Guatemala rose to considerable importance during the war, when Far Eastern sources for these products were cut off. Exports of essential oils in 1945 ranked fourth by value among Guatemala's shipments of agricultural products. The chief types of Guatemala oils are citronella and lemongrass.

Lime Oil Available in B.W.I.

Makers of distilled lime oil in the British West Indies state that they have sizable stocks on hand, some of which accumulated during the past few years. At the end of July 15,000 pounds of the oil were reported as available for immediate export from Grenada and Dominica, Windward Islands. Lime juice and crystals were also believed to be available in considerable quantities.

Patchouli Outlook

Although patchouli oil is continuing to be quoted at a ridiculously high level of from $80 to $90 per pound, it is understood that various prices are named for November arrival. In some instances $65 a pound is mentioned while in other directions it is indicated that $50 might be the new price level.

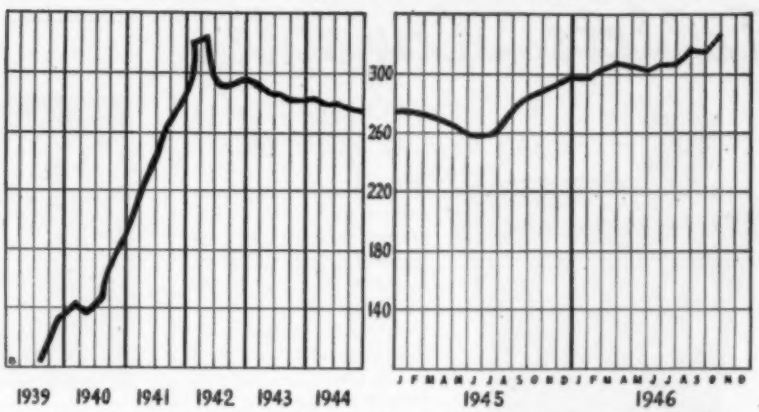
Lemongrass Tight

Oil lemongrass remains in an exceedingly firm position. Some houses are reserving limited quantities for regular customers and since prospects concerning additional replacements are not particularly favorable, considerable caution is likely to be exercised among local houses when accepting orders.

Miscellaneous

Some local houses are withholding offers of oil wormseed pending a clearer picture of conditions in the country where the new crop is now being distilled. Spot prices ranging from $6.25 to $6.50 per pound are largely nominal because of limited offers. Anise from China is easier on recent offerings. Offers of oil lavender from France are plentiful and the price has accordingly dropped. Some Bulgarian rose oil is finding its way here and it is said to be of good quality. Imports of citronella oil are increasing. A feature of the market was a further reduction in the price of oil bergamot. Imported pennyroyal oil, and sandalwood oil are strong.

15 Botanicals—Weighted Price Index. 1926=100.



The botanicals index advanced from 330.2 to 340.5. This was due to the fact that both Balsam Tolu and Belladonna almost doubled in price.

Prices Reduced

(*Continued from page 699*)

price reductions during the period. The former was lowered about 10c to 50c per vial of 100,000 units to hospitals, and to 38c to 40c for wholesalers. These new prices represent a new low for penicillin.

Streptomycin was accorded a reduction of 50 per cent by the manufacturer to a basic price of $10 per gram. After discounts, the price to hospitals will be $8. and to wholesalers $6.40.

Zinc Oxide Up

At mid-month, OPA announced that zinc oxide price ceilings had been moved upward 0.75c to 1c per pound, in line with an increase granted to primary slab zinc. Leaded zinc oxides were raised to 8c a pound, and producers of lead-free zinc oxides were permitted to add 0.75c per pound to their March 1942 "freeze" ceilings.

Glycerin Stocks Fall

Although glycerin production increased from 10,282,000 pounds in July to 12,629,000 pounds in August (100 per cent basis) stocks fell from 46,648,000 pounds in July to 45,979,000 pounds, approximately 4,000,000 pounds below what was considered a safe level during the war period.

With the fats supply tighter than at any time since V-J Day, production during September and October, will probably show a sharp decline when official figures are completed. The surface coating industry is feeling the shortage of this major item and suppliers point out that material for pharmaceutical manufacturers, drug wholesalers, and other users are being allocated in order to divide the limited quantities of material as evenly as possible.

Any decontrol in glycerin prices would result in a sharp rise to approach the present world market price of 70c per pound, officials of the industry reported. The present ceiling price is 18c per pound, they pointed out.

Relief for the shortage of glycerin will depend upon the production of soap, since glycerin is a by-product of the soap industry. The decontrol of meat prices, which should bring substantial supplies of tallows and greases to the soap kettle, will reflect in increased glycerin output as well, manufacturers state.

Glycerin is reported to be in a slightly better position than soap because of the increasing imports of cocoanut oil which contains a higher percentage of glycerin than either tallows or grease.

Menthol Down

The future in menthol which enjoys a wide demand by manufacturers of medicated confections, proprietaries, and tobacco, continued clouded by the recent turn of events. As an example, a late report from Brazil states that the present stock is 280 tons and that pro-

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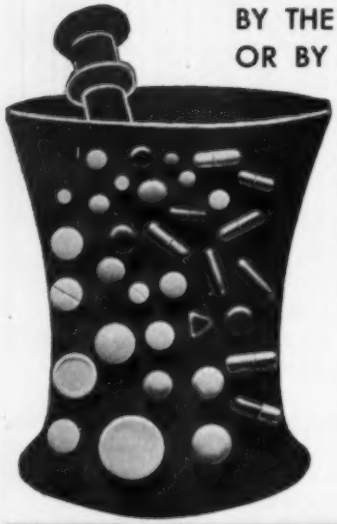

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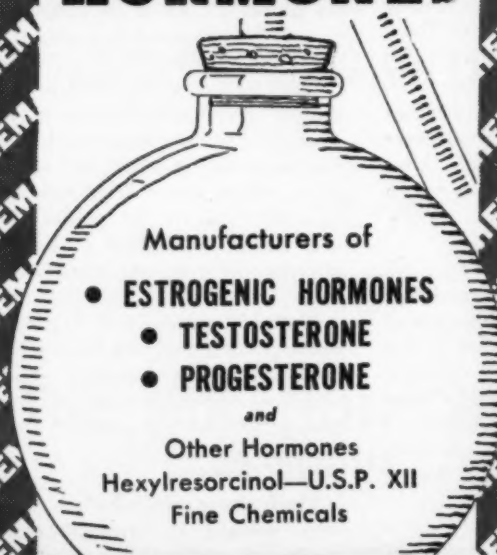

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duction from new crop oil is expected to run around 250 tons. Recent advices from other exporters in Brazil have indicated that current stocks are only 100 tons and that a production of about 80 tons is expected from the new mint crop.

Meanwhile the U. S. Commercial Co. has notified members in the trade to the effect that a second shipment of menthol can be expected from Japan. The first shipment arrived here recently and amounted to about 13 tons. It is understood that a total of about 25 tons of Japanese menthol had been allocated for shipment to the United States, thus the second shipment will probably be about the same size as the first lot.

Late arrivals from Brazil amounted to about 25½ tons and it is understood that another large shipment is nearby. About two or three steamers afloat from China are believed to be carrying menthol.

Some business on spot was placed at $7.80 per pound. This figure represents a considerable reduction from the $8.25 per pound level prevailing at the start of the trading period under review.

Mercury Down

Recent turn of events in the world market has had an unsettling influence on mercury. Spot prices are $5 a flask below those prevailing a month ago or from $93 to $95 per flask as to quantity.

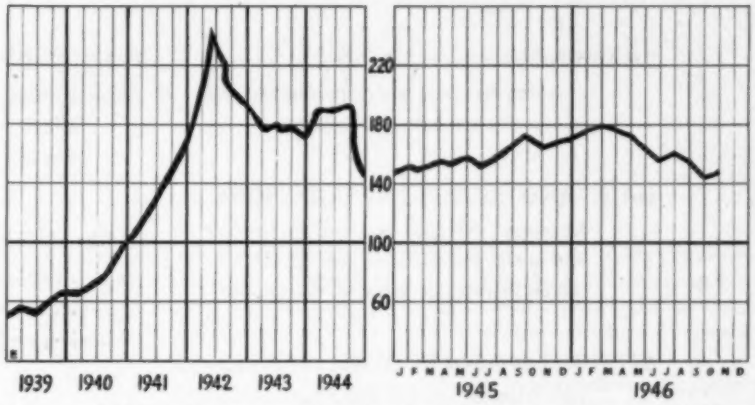
For a time it was believed that Spain and Italy had arrived at a firm price of $80 per flask f.o.b. port of origin, but late reports from abroad indicate that the Spanish and Italian cartel will start to function shortly. Meanwhile it is understood that an offering of Italian metal is being circulated in the local market at $83.25 per flask, considerably below the current price range for domestic metal.

Mercurials have failed to reflect the steady reduction in metal costs since V-J Day but in spite of this major producers report a good demand for derivatives and there does not appear to be any indication of an immediate reduction in values.

Cod Liver Oil Up

There is a general tendency among major suppliers of medicinal cod liver oil to reserve stocks for the regular consuming trade in view of a generally short supply of the article. Most of the large consumers are covered on their anticipated requirements but suppliers are checking inquiries and orders carefully in an effort to assure other customers sufficient quantities to carry them over the heavy consuming season.

15 Essential Oils—Weighted Price Index. 1926=100.



The essential oils index advanced from 140.6 to 142.7. Clove oil was up to $1.55, peppermint oil rose sharply to $7.75. Anise, bergamot and lime were easier.

Spot prices have advanced to $2.60 per gallon for U.S.P. grade in drums.

CRUDE DRUGS

Collections of domestic botanicals are reported to be somewhat larger than were anticipated, but at best are but a fraction of actual requirements.

Food and Drug Administration detentions of poor grade raw materials at ports of entry continue to grow as foreign importations increase. Crude drug imports during June showed a decline largely due to the large drop in licorice root, although losses were indicated for aloe, henbane, kola nuts, opium, psyllium, quince seed, sarsparilla root, and senna. Major import gains were recorded for buchu leaves, gentian, nux vomica, and papaw juice.

During the first 6 months of this year 30,875,466 pounds of crude medicinals were received, a gain of 45 per cent over the comparable 1945 period.

According to reports substantial price increases can be expected on many European botanicals because of the drought which prevailed during the growing season this year.

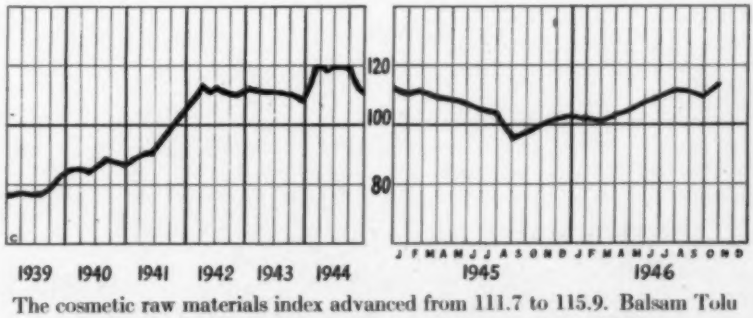
Early crops, such as belladonna and chamomile flowers suffered considerable damage by the drought in the principal growing districts. Other principal articles produced in Central Europe include stramonium, henbane, arnica, juniper berries, ergot, and digitalis.

While these items are produced elsewhere, there is not sufficient quantities grown in other countries to meet United States requirements.

Miscellaneous

A further advance is noted in senega root. Little is offered from the Northwest. Spanish saffron is offered at $38. Some tragacanth is expected to arrive here from Iran during the month. Low grades of gum karaya are scarce here. Spot prices on Chinese cantharides have been gradually working lower. Domestic lycopodium is expected on the market soon. Some Russian material is also in sight. Spot rhubarb is reaching a price level close to replacement costs. More gum myrrh was imported in January-June period than in the similar period last year. The abnormally high prices on belladonna are virtually nominal in the absence of spot offerings.

25 Cosmetic Raw Materials—Unweighted Price Index. 1926=100.



The cosmetic raw materials index advanced from 111.7 to 115.9. Balsam Tolu advanced from $2.50 to $4.25, menthol was easier at $7.80.

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English-French and French-English Technical Dictionary, by Francis Cusset, 590 pp., Chemical Publishing Co., Brooklyn, $5.

This volume was compiled to help the technical man in reading French technical texts. It covers the fields of metallurgy, mining, electricity, chemistry, mechanics, and the sciences. Part I is English-French, Part II is French-English.

A History of Medicine, by Douglas Guthrie, M.D., 448 pp., Illus., J. B. Lippincott Co., Phila., $6.

Without the historical, philosophic background, the study of medicine is incomplete, for by the historical method alone can many problems of medicine be approached profitably. This book answers the needs of those who recognize this value of a comprehensive account of the development and progress of medicine as an art. Dr. Guthrie brings life and meaning to the background and traditions of medical practice. From the blind empiricism of the ancients, he covers the chronologic and geographic march of medicine. He shows the work of men both great and small, relating countless, pertinent anecdotes which describe the fashions and sects in medicine throughout the ages, and enliven the pages

Transvision Anatomy of Head Structures Involved in Problems of Oral Prosthesis, Wernet Dental Mfg. Co., Jersey City, $1.

A long felt need in the dental field is being filled by an excellently visualized anatomical atlas of the oral cavity and surrounding structures just made available by the Wernet Dental Mfg. Co., of Jersey City, N. J., as a service to the dental profession. Bound in book form it presents a series of three-dimensional illustrations in full color. There are eleven figures in the book, visualising: (1) Right side of the head, (2) Deep surface of skin, and parotid gland —viewed from within, (3) Muscles of face and associated structures, (4) Insertion of tenporalis and external pterygoid muscles—viewed from within, (5) Infratemporal fossa, and buccinator muscle, (6) Pterygoid plexus—viewed from within, (7) Blood and sensory supply of the jaws, (8) Medial surface of the mandible—viewed from within, (9) Lateral pharyngeal structures . . . floor of mouth, (10) Midsagittal section of the head, and (11) Left lateral nasal wall and palatal muscles—viewed from within.

Skin Diseases, Nutrition and Metabolism, by Erich Urbach, M.D., Associate in Dermatology, University of Pennsylvania, with the collaboration of Edward B. LeWinn, M.D., Associate in Medicine Jewish Hospital, Phila., 634 pp., Illus., Grune & Stratton, New York $12.

As this is the first and only book on the subject it is expected to do much in giving dietary measures the place due them in the treatment of dermatoses. The book is indispensable in the practice of dermatology, internal medicine and allergy. It contains an immense amount of information that is needed every day by pediatricians, clinical pathologists and workers in the fields of metabolism, nutrition, biochemistry, and dietetics. It is well arranged in five parts. The efficacy of dietotherapy of skin diseases is documented by 266 photographs. There are 112 tables in the book, providing at a glance sample menus, directions for dietary treatment, and data that are required to adapt the various types of diets to the quantitative and qualitative needs of the individual patient.

Music in Medicine, by Sidney Licht, M.D., Fellow, New York Academy of Medicine, 132 pp., New England Conservatory of Music, Boston.

This book was written with a view to preserving for medicine that which is good for patients, and in an attempt to aid musicians under medical guidance in using music to help the sick. It is a comprehensive psychologic and physical review of the use of music in treatment and in hospitals and contains indications, methods, and organization.

Scientific Instruments, Edited by Herbert J. Cooper, Head of Engineering Dept., South-West Essex Technical College 305 pp., Illus., Chemical Publishing Co., Brooklyn, $6.

This book discusses a wide range of instruments designed for making physical measurements—not only laboratory instruments but also those used in the field, in industry and commerce. In addition to the description of the various instruments, space is devoted to a discussion of the principles on which they are based and to methods of measurement. The book is divided into five sections of broad types of instruments and each chapter contains a section on various specific classes. For example, Section 1, dealing with optical instruments, has chapters on lenses, microscopes, spectroscopes, etc.

Emulsion Technology, Theoretical and Applied, A Symposium, Second Ed., 360 pp., Chemical Publishing Co., Brooklyn, $6.50.

The application of emulsions in many industries and technical process is discussed in this compiled symposium. A new section has been added to this second edition on the theory of emulsions in which all current conceptions have been compared and discussed in detail; the reader is given a clear picture of the viscosity, surface-film, surface-tension, phase-volume, solid particles, adsorption, hydration, oriented-adsorption, oriented-wedge and electo-kinetic theories and of their contribution to the explanation of the various phenomena of emulsification. A special feature of this new edition is a comprehensive list of emulsifying agents divided into the following categories: Anion Active Agents, Cation Active Agents, Non-Ionic Agents, and Miscellaneous Emulsifiers. This alphabetical list includes trade names, chemical composition, emulsion type, references, manufacturer and recommended uses of the emulsifying agents. The book also contains date on methods of formulation of many practical emulsions in the fields of drugs, cosmetics, beverages, foods, polishes, waxes, coatings, paints, etc.

Patent Thoughts and Trends

(*Continued from page 672*)

attempt oral administration due to the failure of the patient to cooperate or to many other conditions. On the other hand, the intramuscular route is always available and it would be possible to utilize these barbituric acids if solutions suitable for intramuscular injection were obtainable.

According to the present invention, solutions of the barbituric acids are provided. These solutions can be injected intramuscularly without detrimental effect upon the patient, producing the desired hypnosis or anaesthesia without irritation. They can be sterilized and kept for long periods of time without loss of activity.

The solutions of the present invention comprise barbituric acids dissolved in a non-aqueous solvent. The organic solvents employed must act as such for the barbituric acid or acids utilized; that is, the barbituric acids must be soluble to produce the required concentration of hypnotic or anaesthetic component in the organic solvent. The solubility of the barbituric acid in the organic solvent must not be substantially less than 10 per cent and preferably is at least 30 per cent. There is no upper limit for this solubility.

Moreover, the solvent itself must not be too soluble in or be miscible with water. Solubilities of the organic solvents in water of the order of 10 per cent are, for example, satisfactory, and may be even higher without unduly detracting from the effectiveness of the barbituric acid. Zero is the lower limit for this solubility.

If the solvent possesses too great a solubility in water the effectiveness of the resulting barbituric acid composition is markedly decreased. Solubilities as high as 15 per cent of the organic solvent in water are permissible. The preferred type of solvent, however, has a solubility in water of approximately 10 per cent or less.

Typical of the solvents which may be employed are paraldehyde, triacetin, and olive oil, although other organic solvents possessing the requisite low solubility in water and having a pH value in aqueous solution of substantially 7 may be substituted."

U. S. 2,408,020—**(Ciba)—Pyridine-3-Acetic Acid and Derivatives**

These products, said to exhibit strong parasympaticotropic action, are made in better yield than heretofore by a process in which pyridine-2-carboxylic acid ester-3-carboxylic acid halides are caused to react with diazomethane, the corresponding diazoketones are then allowed to react with alcohols, preferably in the presence of catalysts, such as, for instance, silver and copper compounds.

U. S. 2,407,966—**(Sharp & Dohme)—Diazine Compounds**

This patent is a reminder that the last word is not in on new sulfa drugs. The patent deals with new heterocyclic derivatives of sulfanilamide in which a heterocyclic radical (derived preferably from pyrimidine groupings) is linked to the sulfonamide group.

U. S. 2,408,536—**(Parke, Davis & Co.)—Prothrombin Product**

This is a companion patent of the preceding one, both being derived from U. S. 2,398,077, April 9, 1946.

The point of this patent is that prothrombin containing more than a certain amount of antithrombin cannot be purified by the magnesium hydroxide technique, as the hydroxide absorbs some of the unwanted antithrombins. The patent teaches a preliminary purification step, based on isoelectric precipitation definitely excluding calcium compounds.

U. S. 2,407,823–**(Research Corp.)—Antihemorrhagic Esters**

Harvard's Fieser has solved an important problem in Vitamin K therapy by furnishing new water-soluble compounds which possess antihemorrhagic properties. Vitamin K_1 itself is not water-soluble, which proved a draw back as far as its use in medicine was concerned.

The new compounds are the sulfuric and phosphoric acid derivatives of the hydroquinones corresponding to vitamin K_1, 2-methyl-1, 4-naphthoquinone, and 2, 3-dimethyl-1, 4-naphthoquinone; the salts of these sulfuric and phosphoric acid derivatives.

U. S. 2,407,937—**(Hercules)—Terpenes**

A pleasant smelling mobile liquid having an odor similar to terpinyl acetate was obtained by condensing allo-ocimene and crotonaldehyde, hydrogenating the condensation product and then esterfying with acetic anhydride in the presence of sulfuric acid.

U. S. 2,408,345—**(Wm. S. Merrell Co.)—Vasopressors**

Valuable vasopressors with only a slight central stimulant effect are disclosed. This seemingly means that common colds and hay fever can be treated without interfering with the patient's sleep. The compounds that accomplish this are beta-phenyl-alpha-dimethyl-alpha-amino-ethane and its non-toxic salts.

U. S. 2,407,942—**(Mallinckrodt)—Carbalkoxylation of Organic Compounds**

A process for introducing carbalkoxy groups into ketones by reacting a ketone, a dialkyl carbonate and a metal alcoholate is disclosed. Twenty specific examples apply the process to such ketones as acetone, acetophenone, and desoxybenzoin.

U. S. 2,408,454—**(Sullivan)—Decolorizing Oils**

Organic compounds of animal and vegetable origin should have better taste, color and flavor, if the process of this patent is followed, according to the patentee. Instead of the alkali treatment of natural products such as glycerides, it is proposed to use preformed soaps of hydrous character, thereby eliminating color bodies and other dissolved solutes present in the oils.

U. S. 2,408,535—**(Parke, Davis & Co.)—Thromboplastin Product**

Through the use of magnesium hydroxide, antithrombin-free thromboplastin useful in the preparation of highly active thrombin preparations useful in blood clotting is obtained. Thereby, stable products soluble in physiological saline are obtained.

Other Patents

U. S. 2,408,066—**(Alien Property Custodian)—P-Amino-Benzene-Sulphamide Derivatives**

U. S. 2,408,182—**(Secretary of Agriculture)—Derivatives of Isoascorbic Acid**

U. S. 2,408,096—**(J. H. Wotiz)—Polyhydroxyamino Compounds**

U.S.2,408,518—**(Hoffmann-LaRoche)—Thiophan - 3 - One, Intermediate Medicinals**

U. S. 2,408,519—**(Roche Products)—4-Keto-Tetrahydrothiophenes, Intermediates for Biologically active Substances**

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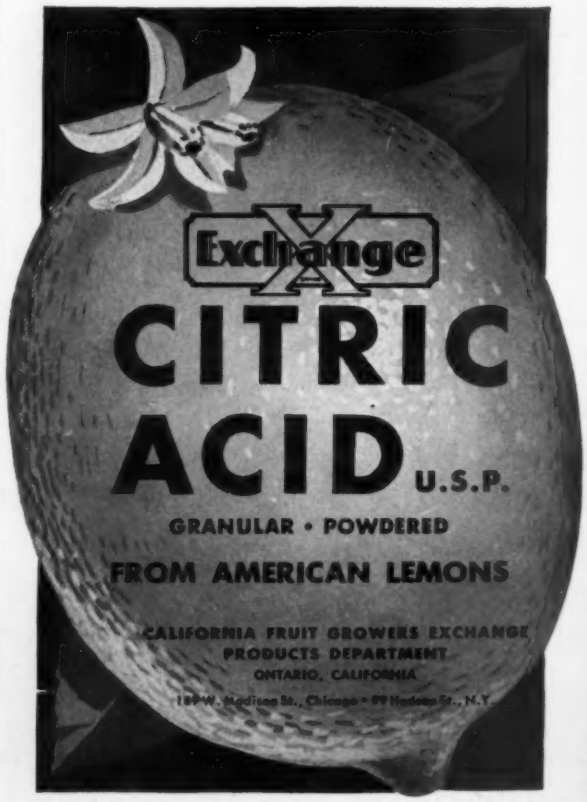

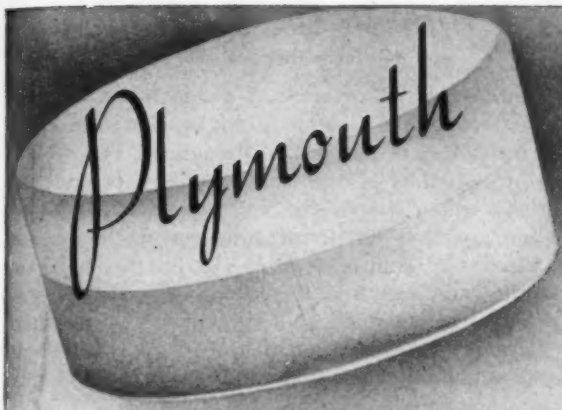

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Up-to-Date on Vitamin C

(Continued from page 636)

povitaminosis results in weak cell pigmentation and that the introduction of ascorbic acid is rapidly effective in the restoration of hemoglobin formation. This recalls the suggestion by Isreals[50] that vitamin C be given to patients whose anemia's do not respond satisfactorily to iron therapy. Of pertinent interest is the success obtained by Heilmeyer[51] with the injection of iron ascorbate in patients suffering from secondary anemia. He noted better absorption with iron ascorbate than with other iron products. Others[52, 53] have also recommended the use of this iron-vitamin C salt for specific anemic conditions.

Several reports[54, 55, 56] attest the value of vitamin C in the treatment of essential hematuria. Administration of adequate amounts of the vitamin results in the disappearance of blood cells from the urine.

The diuretic action of vitamin C has been noted by a number of clinicians.[8] Useful by itself,[57, 58] it has been found that the simultaneous administration of large doses of vitamin C greatly augments the diuretic action of other edemo-relieving drugs, particularly the mercurial diuretics.[59, 60] This, of course, is an important consideration in the treatment of patients with cardiac decompensation and other edematous conditions.

Aside from its physiological role as a vitamin, ascorbic acid also plays an important part as a detoxifying agent for certain chemotherapeutic agents and industrial poisons. Fox[2] cites work which indicates that ascorbic acid is able to prevent or cure the toxic effects of substances like benzene, trinitrotoluene, or neoarsphenamine. Similarly, Jusatz[10] notes that ascorbic acid possesses a neutralizing action toward such poisons as diphtheria toxin, heavy metal and gold and is able to counteract the side-effects of quinine. Some workers[61, 62] have found that high vitamin C intake hastens the excretion of lead, but others[63] have not been able to confirm this observation. Carratala[64] has observed that the therapeutic application of vitamin C not only neutralizes the hypersensitization caused by gold therapy but also has the property of attenuating or nullifying the toxicity of this metal.

As has been demonstrated on many occasions, the concomitant administration of vitamin C is of definite value in controlling intolerance to arsenicals.[9, 65, 66] Other studies[7, 67] indicate that vitamin C. not only detoxifies but also improves the therapeutic activity of the bismuth, antimony and arsenic group of metals. Pelner[45, 68] has used this vitamin to overcome intolerance to salicylates, stilbestrol and the sulfonamide drugs. Work done by this investigator and others seems to point to the possibility that vitamin C is necessary to prevent certain toxic effects of the sulfonamides.[69]

Considerable controversy rages over the value of vitamin C in the treatment of various allergic conditions, such as hay fever, asthma and food sensitivities.[70, 71] An imposing amount of evidence has been assembled by

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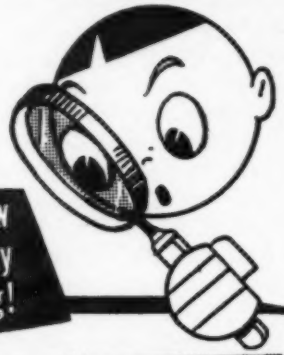

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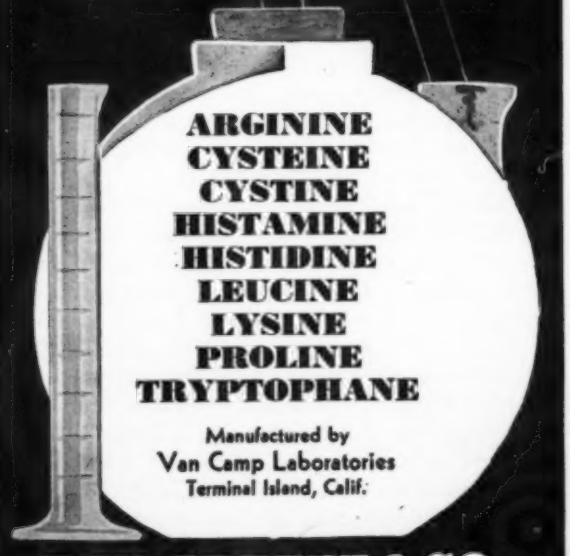

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those who have found it effective for alleviating allergic symptoms.[72-77] However, other articles persent data which appear to contradict these findings.[78-81] The battle continues, but whatever its outcome, the situation can be best summarized in Zimmerman's[82] succinct remark that "its value in allergic conditions is not doubted by persons who have been benefited."

During the war, vitamin C was called the "Commando vitamin," and apparently with good reason.[83-86] Since then, others, on the basis of their own experience, have questioned the ability of ascorbic acid to increase physical endurance, decrease fatigue and combat the effects of heat.[87, 88, 89] This is another phase of vitamin C utility where more long-term objective studies are needed.

Aside from its status as a nutritional essential and therapeutic agent, vitamin C has begun to assume new importance as an industrial material. The cosmetic industry, for example, has found several applications for ascorbic acid. For instance, it has been suggested by foreign workers[90] that ascorbic acid may be included advantageously in creams, such as night creams, because of its effect in causing the disappearance of freckles. A cream containing 2 Gm. of ascorbic acid (among other additions) per 100 Gm. was developed and recommended by these workers.

Patented processes[91] describe the use of ascorbic acid as a stabilizing agent for sun-tan preparations. Inclusion of the vitamin in creams of the vanishing or non-vanishing types, inhibits oxidation of the hydroquinone and discoloration of the cream. The concentration of the acid is used in proportion to the quantity of screening material. Thus, with preparations containing 5.0 and 8.0 per cent. of hydroquinone, 0.15 and 0.40 per cent of *l*-ascorbic acid, respectively, will produce the desired effects. Another form, *d*-ascorbic acid may also be used.

A somewhat earlier patent[92] indicates the value of ascorbic acid as a stabilizer against rancidification for perfume materials, such as various essential oils. Another patent, granted to the same inventor, relates to the stabilization of perfumes for soaps by adding ascorbic acid to inhibit oxidation.

This leads naturally to a consideration of recent work pointing to the utilization of ascorbic acid and compounds made with it as means for preventing undesirable changes in fats and oils. Especially valuable in connection with edible products, but of obvious importance in conjunction with other fatty materials, several studies[93, 94, 95] have shown that ascorbic acid and certain fatty acid monoesters of ascorbic acid produce an antioxidant effect in inhibiting rancidity in fats and oils, and in products like shortenings, salad dressing, spreads and the like. Several patents[96, 97] have been granted which describe the use of ascorbic and acid of ascorbyl monoesters of fatty acids in synergistic combinations for stabilizing fatty substances and products containing them.

Ascorbic acid has also found important uses in processing frozen and canned fruits. Recommended as a

means of preventing surface darkening and the development of oxidative off-flavors of canned fruits,[98] the use of vitamin C has found extensive employment for similar purposes in the frozen food industry.[99] During the last two or three years, the application of vitamin C has become almost general in the frozen fruit industry in which the vitamin is used to prevent browning of the packaged fruit on opening and exposure to air. Of kindred interest are the possibilities of using ascorbic acid as a dough conditioner; studies[100] having shown that the vitamin improves the grain, texture and crumb color of the loaves.

Such applications obviously mean a much wider and greater commercial utilization of vitamin C. New discoveries in the fields of physiology, nutrition, therapeutics and industry will no doubt greatly expand its usefulness. The progress should be well worth watching.

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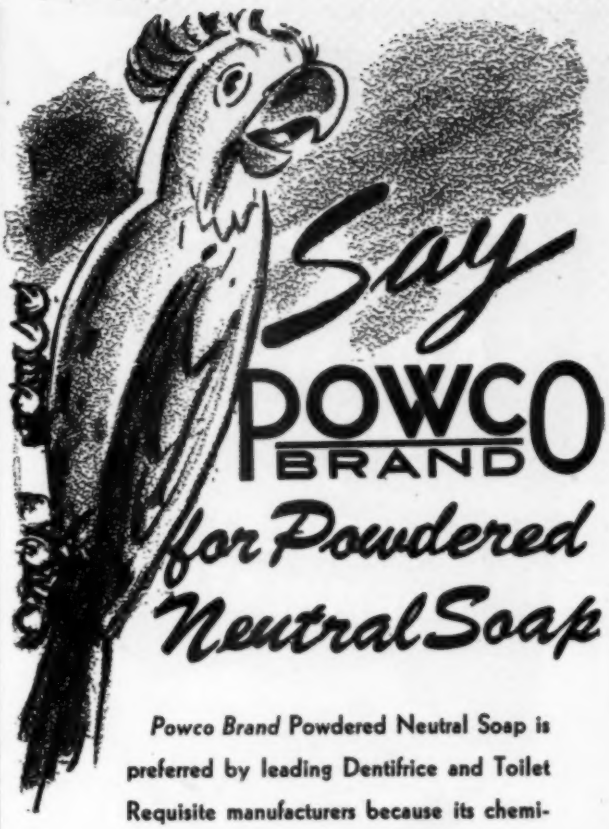

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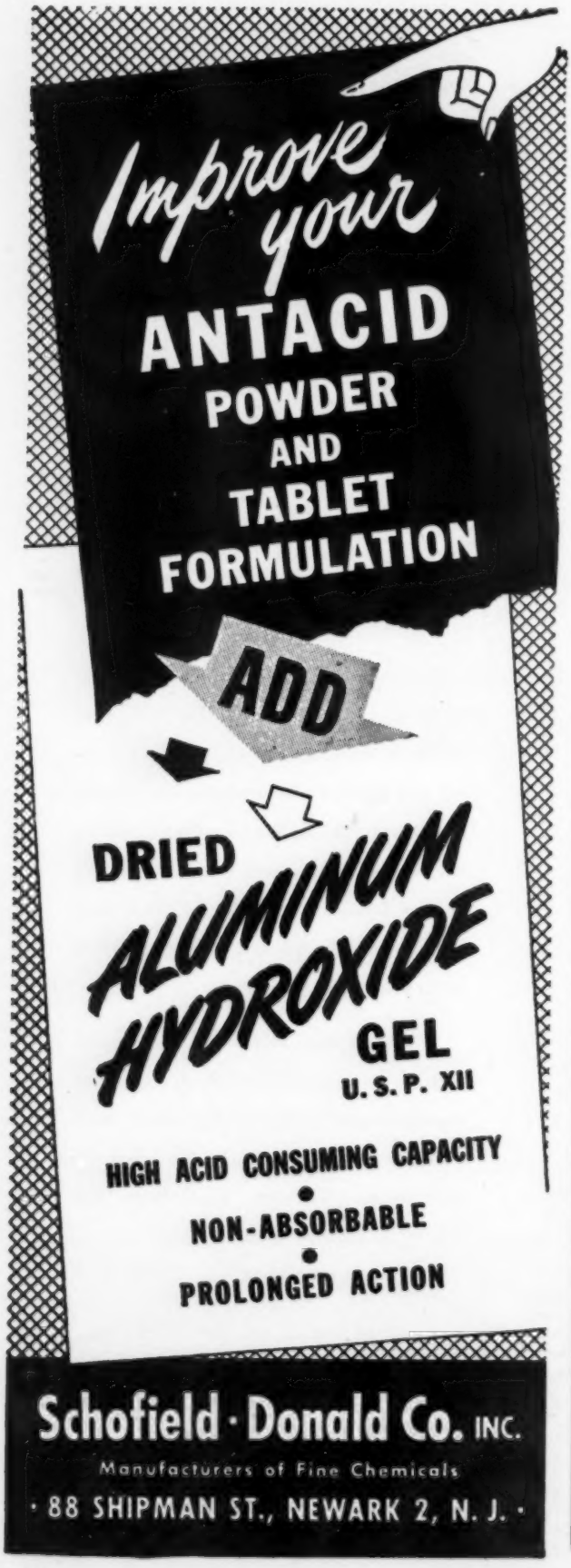

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Future of Men's Toiletries

(*Continued from page 633*)

First of these steps will be concerted planning to build business that is not gift business. This may mean, as the packaging of a few companies show, companion packages for the gift items that are plainer, more moderately priced, but still retaining some family resemblance. It has long been a serious weakness of some products that their dominant package appeal has been a gift suggestion. Even some moderately priced lines have had so distinctive a package that a man, once introduced to the line and liking it, has felt as if he were making himself a present every time he repurchased for use.

The perfume odor of men's toiletries still remains a problem. The colognes, toilet waters and after-shave lotions, in all their variety and abundance, have yet to strike an original note so popualr with men that repeat sales in any volume could be accredited to the odor. A few of the really beautiful packages have such an inferior odor that anyone would be justified in speculating how many victims of the gift ever really saw the bottom of the bottle. There can be little question that a great deal of work still remains to be done on perfume notes popular with men before these products can reach their full potential of direct and repeat sales by men.

New products have been added to the lines of class men's toiletries, that were never part of the drug store lines and which are outside the range of any products included in gift sets and gift packages. Some of these, as the deodorants, are showing promise of steady growth. While not in any sense a gift, the advantage of these toiletries lines, in their constant exposure to the women shoppers, gives them an opportunity of first introducing their product to the man and establishing a habit which will eventuate in a direct purchase.

But the volume from these additional products, slow in developing, gives a little promise to an industry eager and ambitious to travel at the pace to which it has been accustomed.

There is plenty of promise for the industry and ample scope for the vision and daring which made it what it is today. The promise lies in industry specialization.

Some time before the war, when cosmetic companies could be identified with moderate clarity as perfumers, or treatment, i.e. cream houses, make up or bath preparations, the companies in the industry had a public and trade identity that bred confidence in their products and contributed in a large measure to the steady expansion of each of these fields. Now in the hodgepodge of a general store business by so many companies, the market expansion contribution of specialization is nearly forgotten, or would be if a few like Revlon were not a constant reminder.

There are three clear paths for the expansion of men's toiletries, in specialized fields, which may easily make the present volume of twenty-five millions at wholesale prices look very moderate indeed. Two may look radical and even amusing. But then the trade was rather amused or at least tolerant toward Al McKelvy, Jack Moore, Claypool, Nassour et al six years ago. Besides, the trade will see products, advertising and promotions for each new group next year.

The three are, (1) the present products, basically shave accessories, (2) a treatment line for men (3) bath preparations.

Probably number two will excite more scepticism than the others. There are only four answers now to this scepticism, (1) preliminary tests show that as many as half a million men are now using cleansing creams and the basic products of a treatment line at home. (2) Barber shops have for years done a very profitable business in facial treatments for men. (3) Men have definitely been losing their inhibitions to good grooming. The whole trend indicates expansion of the industry in this direction is overdue. (4) Some very smart people in the men's field believe in it and two creams, at least, are included in men's lines now, with more to come.

The one single factor of major importance which brought this present men's toiletries industry into existence was specialization. It is to be hoped, as the industry grows, that this fact will not be forgotten. And further, that new divisions, capable of large volume, will not lack the force, the conviction and the market influence of specialization.

In this expansion of men's toiletries, there is fortunately a retail trade enthusiastically ready to help. Among the stores that are competent cosmetic merchants, the stores with a real ability to sell—the department stores, the better stores of good chains, the fine drug stores—there have been great changes in store policy toward men's toiletries that practically plead for industry expansion. Many stores, largely department stores, have either set aside definite space in their toilet goods department or created special sections near this department with an inviting name such as Good Grooming, Grooming Accessories, Shave Shop, etc. Over 70 stores will have a specially trained sales-clerk for this department; about 30 are this year experimenting with a man demonstrator.

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branch of the industry has more optimism or more confidence in its future. In no other branch is there more daring or more imagination. Now with at least 10 companies doing a total of nearly 20 million dollars a year, with another twenty, now small but capable of real growth, with vigorous newcomers from old established cosmetic and perfume companies, or new to the industry pressing for admittance, there is a diversity of ability, of marketing flairs, that surely points to action and invention.

The Dental Market

(Continued from page 639)

Dr. Lyon's leads. Although this brand leads in popularity, it is being used by a smaller number of families each year. The percentage of families buying tooth powder who buy Dr. Lyon's has been also declining, except for a fractional gain in 1946 over 1945. In 1946, 48,120 families, or 43 per cent of the tooth powder buyers, use this brand.

Store distribution. Dr. Lyon's is stocked in 1946 by 85 per cent of the independent druggists, both chains and all of the department stores.

Dollars in the Dental Market

According to a recent statement by Dental Survey Publications the total annual volume of the dental market is 300 million dollars. Broken down it looks like this:

Dental supplies, equipment and materials sold to dentists	$100,000,000
Dental laboratory volume (one authority says $125,000,000)	$ 70,000,000
Dentifrices	$ 70,000,000
Mouth Washes	$ 18,000,000
Tooth Brushes	$ 35,000,000
Denture adhesives, cleansers, etc.	$ 4,800,000
Miscellaneous, including diet reinforcement preparations, anodynes, etc.	$ 7,200,000

The Key to the Dental Market

The dentist is considered to be the key to the dental market. By the middle of 1947 there should be 70,000 dentists in the United States. For those who plan to promote dental products the dentist should not be overlooked. His influence over his 30 million patients is considerable. Also not to be forgotten in promotion plans are the thirty thousand dental assistants who carry real weight in many phases of the dental product and supply market.

We think a recent Oral Hygiene dental market study summed up the future of this field well when it concluded that: "During the war years, though the demand for dental care was greater than ever before, there were 20% fewer dentists available to civilian patients. Although dentists increased their appointment schedules and working hours in an effort to meet the increased demand for their services, there still remains a vast amount of accumulated dental work to be done. Add

to this volume of accumulated dentistry the normal incidence of dental disease, and we have evidence of a continuing rise in the future demand for dentists' services."

Henry P. Bristol

(*Continued from page 637*)

Henry Bristol is a soft-spoken, easy-to-meet kind of man. His shrewd business methods and visionary thinking have done much to make B-M what it is today. He was born in Clinton, New York fifty-seven years ago. After graduating from boarding school he attended Hamilton College. He completed his work at Hamilton in 1910. In 1930 he received an Honorary Degree also from Hamilton. Except for time out to serve his country in World War I, Mr. Bristol has expended all his efforts in working with his brothers to make Bristol-Myers a successful company. Even a casual glance at B-M convinces the observer that they have done a good job.

Today Henry Bristol is concerned with two subjects that are giving thoughtful business, political and labor leaders many headaches. The first is full employment. Says the able Bristol-Myers President:

> We hear much glib talk of "full employment." Business is told it must provide full employment: government is told it must insure full employment; I have no doubt workers tell their labor leaders that they must see to it that full employment is maintained. Certainly, most political candidates are quick to declare themselves for full employment.
>
> Well it is a nice mouth-filling phrase. It sounds well from the rostrum. But, unfortunately, most of our best platform phrases turn out to be something else again when we attempt to implement them. "Full employment" is certainly no exception. How full is full? With all our labor shortage, do we have "full employment" now?
>
> In its qualified and relative sense, "full employment" is not full but merely reasonably high. As such it ties in with high levels of economic activity and is obtainable under conditions of free enterprise and private capitalism. The real difference does not lie between "no public policy" and state socialism. It lies between public policy aiming at a stable growth of free economic life, and public policy aiming at collectivist, centralized planning of our whole economy. The former policy can assure a high level of employment and can reduce to a minimum the amount and the duration of transitional unemployment; it maintains the freedom of the individual to choose his job. The latter policy can assure "full employment" in the absolute sense of the word, through compulsory work for all, with limitation or suppression of individual freedom. It is up to John Doe, the citizen, to decide what course he intends to promote.

The second problem is the U. S. and foreign trade. In easy-to-understand language, Mr. Bristol states the case well:

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Ends your hazards in achieving safe and sound cold permanent wave formulations.

Why run unnecessary risks when you can obtain the finest Thioglycolate, reasonably priced, without sacrifice of quality. Free of dangerous impurities and extremely low in mineral content, all shipments are backed by guaranteed specifications.

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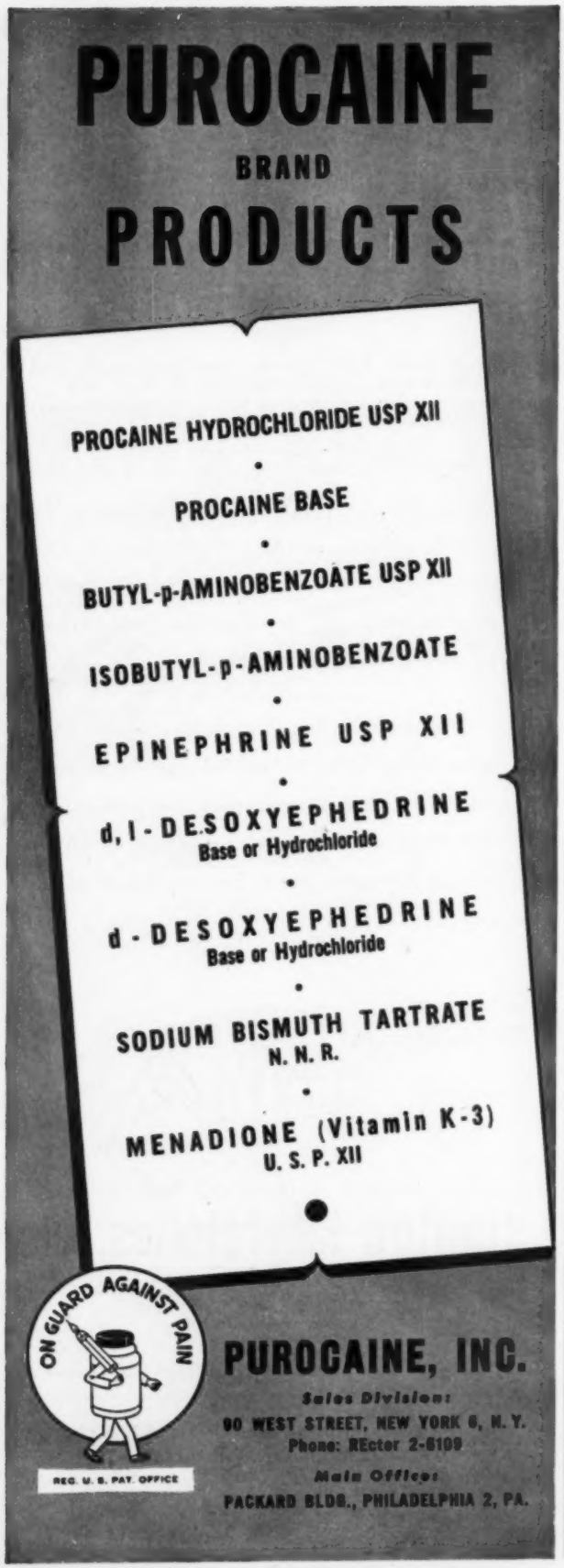

The average American has been traditionally isolationist. With the Atlantic on one side and the Pacific on the other, the problems of Europe and of Asia have seemed far-removed and unimportant. Interest in foreign trade has been confined largely to a few of our seaboard states. There is some doubt that, even after our second world war, many of our citizens realize the position of our nation as a world leader and the importance to every one of us of international relationships and, more particularly, trade relationships. Yet if we are to maintain our American form of government and our cherished American way of life, it is imperative that all of us as citizens realize the economic relationships of nations and the interrelationship between our domestic and foreign trade. We cannot expect our political officials to guide us through the difficult period ahead if we ourselves do not understand what is at stake.

The United States is the only country in the world which can decide whether foreign trade will expand, and how rapidly. If this country adopts a sound and imaginative program of foreign investments and opens its domestic market to the influx of foreign goods, it will provide the world with enough dollars to buy a growing volume of American exports and with that incentive to growth, without which neither Britain nor ourselves can find adequate outlets for our production.

These are complex problems. Traditionally John Doe left them to economists and politicians. The time has come now when the impact of these problems upon his own daily life is so great that he can no longer afford to brush them aside. He must understand the issues and make up his own mind about them. Having given proof in the past of his ability to adapt himself to changing physical and social conditions, he will certainly be able to make also this new and difficult, but very necessary adaptation. And, while attending to his daily pursuits, he will gradually get into the habit of thinking in world terms. By doing so he will promote policies which will make the world a safe place for our free-enterprise economy as well as for our peaceful and democratic political institutions.

Mr. Bristol sees the road ahead as it really is. He is not befogged by the imaginary obstacles that bedevil the pessimist or the moon-in-June philosophy of the incurable optimist. Henry Bristol understands his job well. Facts are his guide posts. He appreciates their true value and mixes them in just the right proportions with human nature.

Emulsion Technology

(*Continued from page 645*)

ucts in their pure form are not self-emulsifying, due to the fact that they did not have sufficient hydrophillic properties to measure up to the concept of a balanced emulsifier. For that reason, in order to make them self-emulsifying, various steps are generally added. More recent developments in this field are the introduction of

esters of the higher polyethylene glycols, which contain multiple ether linkages and hence are sufficiently hydrophillic to be self-emulsifying. We also have a great number of partial esters, in which either the unreacted fatty acid or alcohol groups, or both, are reacted with alkylene oxides, amine complexes, etc., in order to achieve the same effect. Many members of this series are stable to acid- or alkaline-reacting materials and are responsible in a large measure for the development of the many novel preparations which are appearing almost daily.

4. *Sulfated or Sulfonated Compounds*—Sulfated and sulfonated oils made their appearance during the nineteenth century, and this group in itself has a long history. Thereafter, the number of new compounds has increased rapidly. While the sulfonated materials were not developed particularly for the purposes of supplying emulsifiers, they have a recognized and essential function in this field. There are many different sub-groups in this category, the principal ones being the various salts of sulfonated alcohols, amides, esters, naphthenic derivatives and many others.

5. *Miscellaneous*—In this last category, as previously mentioned, we should like to include those emulsifiers which do not fall into the main groups, but which are, nevertheless, of extreme importance. Among them we find lanolin, beeswax, lecithin, cholesterol, cetyl alcohol, absorption bases, etc.

In addition to structural classification, emulsifiers may be divided according to function. But, this presents even greater difficulties than the former method. However, it is possible to point out which emulsifiers tend to form water-in-oil emulsions and which favor the opposite type. In Group 1 it has been previously mentioned that the monovalent metallic soaps are oil-in-water emulsifiers while the polyvalent compounds form water-in-oil emulsions. In Group 2, the gums are all used to form oil-in-water emulsions. Likewise, the majority of the fatty acid esters in Group 3 are oil-in-water emulsifiers. The outstanding exceptions in this category are the esters of the polyhydric alcohols and oleic acid which are extremely efficient water-in-oil emulsifiers. The sulfonated or sulfated members of Group 4 are generally all employed as oil-in-water emulsifiers. As its heterogeneous makeup would indicate, the members of Group 5 have mixed functions. Lanolin, cholesterol, lecithin, and the various absorption bases or various combinations of these are often used as the base for forming water-in-oil emulsions. Small amounts of these materials are often added to oil-in-water emulsions for special effects. Beeswax and cetyl aclohol are often found in both types of emulsions, extremely small percentages of cetyl alcohol being very effective as stabilizers in either type.

Mechanical Aspects

Having selected the materials to be emulsified and chosen the emulsifier, the next step is to work out the method of preparation. In many instances, the application of heat to one or both emulsion phases is necessary.

KOMMON/ SCENTS!

Local political situation, like the international, is about as clear as the mud the boys are slinging. Everybody expects "A Protest Vote" but nobody knows against whom.

•

Republicans give the impression they're trying to beat Joe Stalin to the White House in '48. Democrats insist they're more afraid of The Wolf at the Nation's Door than Riding Red.

•

And some of the behind-the-scenes language makes a brawl between a Top Sergeant and a Bosun's Mate sound like a tender exposition of the social graces.

•

The opposition say—if Truman runs—in '48—it'll only be to hide. The Dems say: "Tom Dewey's moustache!"

•

And L'affaire Wallace hasn't cleared things up a bit. Those Democrats who disagreed with the ex-Commerce Secretary politely hollered "Oh, Henry!" But after seeing how they armed the Opposition, they're now crying: "Oh, my aching back."

•

As new editor of the New Republic, Wallace, once editor of a farm journal, has gone from contented cows to discontented intellectuals. Contrary to what you may hear, there is a difference.

•

To go a step further, the difference between an intelligent man and an intellectual should be established right here: They both have something to say, but the former knows when to stop talking.

•

Republicans scoffingly say FDR's mantle fits Truman to a "T". The "T", of course, stands for "Temporary."

•

The Republicans, even according to their critics, should be applauded for being more consistent. They'll nominate a progressive worthy of following in the footsteps of Herbert Hoover. (You remember Herb.) He's the feller who climbed to the heights of obscurity.

•

Trade observation: After all the political propaganda that's being peddled, we don't wonder at a shortage of Castor Oil.

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This is particularly the case where solid substances are a part of the emulsion. A prime consideration in this respect is the choice of a heating vessel. This should be constructed of a material that will not contaminate the emulsion and which is so designed so as to afford maximum heat exchange facilities. A temperature should be chosen which will give the optimum dispersion to the materials being emulsified. In the writer's experience, 75° C. to 85° C. is best for oil-in-water emulsions, while water-in-oil emulsions should be formed at 45° C. to 55° C. Steam jackets should be used; direct heat should be avoided, to prevent scorching. Theoretically, the dispersed phase should be added to the disperse or continuous phase. That is, in a water-in-oil emulsion, the water should be stirred into the oil; in an emulsion of the oil-in-water type, the oil should be stirred into the water phase. The writer has, however, found it advantageous in emulsions of either type to add the water to the oil. It is also recommended that the water be about five degrees hotter than the oil. In water-in-oil emulsions, the water should be added slowly—a little at a time, each portion being added only after the previous one has been emulsified. In oil-in-water emulsions, the water should be added as rapidly as the size of the batch permits. Three main advantages are derived from these rather unorthodox practices. In the first place, a finer initial dispersion is obtained. Secondly, there is no residue left in the kettle when the aqueous phase is added to the oil, as is the case of the kettle containing the oil when instead it is added to the water. The third advantage is that in emulsions containing waxes, the chances of their being thrown out of solution as a result of local over-cooling is considerably minimized.

Stirring is also an important part of the mechanism of emulsification. It has a threefold function: first, to secure the solubility of the individual components; second, to achieve maximum dispersion of the globules of the dispersed phase; and third, to prevent local superheating or cooling. Generally speaking oil-in-water emulsions should be stirred by small high speed mixers; large, slow speed, side-scraping stirrers are best adapted to water-in-oil emulsions. In either case, the incorporation of air into the emulsion should be avoided at all costs. All water-in-oil emulsions should be stirred continuously until room temperature is reached, while most of the solid type oil-in-water emulsions may be poured while still warm. Sufficiently small particle size to insure stability may be obtained in some instances by simple stirring. In other cases it is necessary to employ a homogenizer or colloid mill to achieve adequate fineness of particle size. The optimum particle size necessary to obtain a stable emulsion varies with the material emulsified. In figures 1 and 2 are plotted the particle size distribution curves of identical emulsions prepared under the same conditions, except that in Figure 1 dimethyl phthalate is the oil being dispersed, while in Figure 2 benzyl benzoate is used. It will be seen that emulsions of dimethyl phthalate require finer dispersion than emulsions of benzyl benzoate. These graphs represent the minimum particle size required to maintain

stability in emulsions of the two materials studied. The average particle size of the dimethyl phthalate emulsion is 1.6μ, while that of the benzyl benzoate emulsion is of the order of 2.43μ.

(To be continued)

Oil of Sea Buchu

(Continued from page 638)

and separation of dark, oily matter. Analysis indicated that the crystals were trimethylsulfonium iodide. Using benzyl, iodide and the same technic, tribenzylsulfonium iodide was obtained. With 3.0 grams of the oil, 6.9 grams of mercuric iodide and 6.6 grams of benzyl iodide dissolved in 15 milliliters of acetone, 0.05 gram of tribenzylsulfonium iodide-mercuric iodide complex separated after the preparation has stood overnight.

The absence of aldehydes and ketones in the oil was demonstrated by negative reactions with sodium bisulfite and semicarbazide, and the inability to obtain the characteristic color reactions for ketones.

One further interesting disclosure in the Smith and Rivett paper is the discovery of another new organic sulfur compound, pentenyl-2, 4-dinitrophenyl sulfide, $(NO_2)_2.C_6H_3$-S-C_5H_9. This was obtained as golden yellow needles melting at 79.5° C. during the isolation and identification of butyl-1-pentenyl disulfide. It is a synthetic compound and does not occur in sea buchu oil.

Foreign Opportunity

(Continued from page 631)

of companies who operate in the manner of entirely separate export corporations.

Surprising as it may seem, not more than about twelve of the large number of companies in this industry operating in foreign markets do the great bulk of the business. These are the companies who are really working at the business of developing foreign markets and are giving this development everything that it needs. These companies are not spreading themselves too thinly over all countries at once, but they are taking each country in turn and developing business in each country at a different time. They work on one country until the business in that country is soundly established so that it will continue to progress over the years that lie ahead and will not alter in the meanwhile. After the business is properly established in one country, then the company moves on to another country. All countries have different sets of conditions that must be carefully studied and it is important that the conditions of each country be fully understood when business is being established there. This is why establishment of business in one country at a time is much to be desired over a method of tackling a number of countries simultaneously.

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products are in demand all over the world. Doubtless, as time goes on, other countries will increase their production and the demand for the products of this country will lessen somewhat. But the companies who are taking a real interest in developing this foreign trade will be able to retain a very large share of it, and, in fact, they might even be able to increase it above today's volume as the result of intensive development and sales work which cause the demand in those countries to multiply. Certainly the manufacturers of this country have had a clear head start over manufacturers from other producing countries and, if this is not wasted, it can be turned into a real advantage.

A great many people in this industry, and in other industries also, talk glibly about foreign trade but relatively few of them do anything real about it. Now is the time to pitch in and develop this business so that it will be a valuable asset in future years. Foreign trade is a great stabilizer for any manufacturing concern. This is for the reason that as domestic business fluctuates in this country, foreign trade often makes for recessions in domestic business. Foreign countries also have business cycles but they are not all similar and they do not very often follow the direction of the business cycles in this country. For this reason the business curve of any company doing business in a large number of foreign countries is apt to be more steady than that of a company doing only a domestic business or doing only a small foreign business in relatively few countries.

Building Prescription Sales

(*Continued from page 643*)

In a period of approximately four years this chain of twenty odd stores have built their prescription business to 400,000 prescriptions annually. It certainly has been profitable for them.

New England Independent—A highly respected pharmacy has put on two radio programs to build good will with the public and physicians. One is entitled "Doctor's Orders." This pharmacy felt that radio was the quickest and most productive way to reach the audience they were trying to impress. They spent six months in preparing their first series of broadcasts. They were fortunate in obtaining the cooperation of the state medical society. The first broadcast was described as an historical event and it signalized the first time a state medical society had used radio drama in combination with personal interviews to tell the story of medical progress.

Another program was presented in the interest of building better relations with the general public. It was called "The Album of Courageous Women." It dramatized the contributions of famous women in history like Florence Nightingale. Similar to the "Doctor's Orders" series it was very objective, and included only a short commercial announcement calling attention to the store's prescription department and professional staff.

As was the case with the southwestern chain, this

pharmacy's experience resulted in increased prescription business.

Pennsylvania Chain—This chain consists of three stores in a city of 125 thousand persons. They have built up a large prescription business by the following logical eight-point plan:

(1) One employee is assigned to the task of devoting all of his time to checking, ordering and controlling drug stocks for the three stores.

(2) Prescriptions are filled in glass-front departments so that all may see the professional manner in which prescriptions are serviced.

(3) Where space is available the stores feature prescription department displays to tie in with the emphasis on building prescription sales.

(4) Every prescription is wrapped with a special type paper designed only for prescription use. This method implants in the mind of the consumer the professional aspects of the store and the care that went into filling the prescription.

(5) Each store submits its drug orders twice a week. Semi-weekly deliveries are made on all available pharmaceuticals and supplies requisitioned. Special arrangements are made for interim deliveries in the event a particular item is "short."

(6) The pharmacists are trained to take the view that the customer must have what the doctor prescribed, and as soon as possible. If the preparation in question is not at once available and the patient is in immediate need of the prescription, it is the duty of the pharmacist to find another store where it can be promptly filled. The policy is "The customer must be served, even if we must pay regular retail prices to insure this service."

(7) All prescriptions are triple checked to insure accuracy. One pharmacist fills the prescription, a second types the label. He then checks the prescription against the ingredients before they are put back in stock making sure first that the label agrees with the prescription.

(8) For the sake of efficiency and economy all frequently used pharmaceuticals are stocked alphabetically in drawers within the vicinity of the work space. In this way the pharmacist has within reach from 6,000 to 10,000 different pharmaceuticals.

National Chain—One well-known national chain is now in the process of testing a new plan for increasing their prescription business. An area has been selected for the trial campaign which is to extend over a period of one year. A topflight man with an excellent background in the various aspects of a pharmacy has been placed in charge of the program. He will be working with over 120 stores for the next year and developing methods for building prescription sales.

Arrangements have been made with important pharmaceutical manufacturers to send to the chain's director of professional service an early announcement of new products. Special cards having a professional and dignified appearance are printed announcing to physicians in

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the area that this particular chain is stocking the new item and information and literature may be obtained if the physician is interested. The cards are then sent to the cooperating store managers who address the cards and sign or stamp them. This gives the flavor of individualized service between the wide-awake community chain store and the local physicians. Since the method is logical and dignified the director of professional service feels that it should help to increase their prescription business in the test area. If it is as successful as hoped, the program will be expanded.

The Way Is Clear

Several years ago the Mallinckrodt Planning Board recommended the following seven steps for increasing prescription business:

(1) Store identification—identify your store on the outside, on the inside, and on your stationery as a professional pharmacy.
(2) Install at least one professional window each month.
(3) Segregate the prescription department and light it adequately.
(4) Stock all ingredients frequently prescribed. Stock the highest quality products and work closely with doctors and detail men in choosing specialties.
(5) Service should be given with speed and accuracy.
(6) Advertising is helpful in building good will. A professional letter a month to every physician on a dignified letterhead is an inexpensive but worthwhile method of creating professional interest.
(7) A concerted effort should be made to devote six hours a week to making personal calls on physicians.

Today, as probably never before the physician, pharmaceutical manufacturer and the pharmacist stand together in the light of public respect and appreciation. It would be regrettable indeed if the pharmacist did not do his part to use it in increasing prescription sales. The road ahead is not smooth but the fruits at the end of the journey are well worth the momentary discomforts.

BATH POWDER PERFUMES: We require a perfumed powdered product to scent our bath powder. Up to the present time we have been unsuccessful in obtaining anything but liquid products to do the job. Due to certain characteristics of our product we have found all liquids to be unpractical. New Brunswick.

In preparing bath powder it is common practice to perfume those items with a concentrated perfuming compound in alcohol. The alcoholic solution is sprayed on and the alcohol allowed to evaporate. However, if you wish a powdered product, it may be possible to prepare such an item by using a material upon which the perfume ingredients are adsorbed. I would suggest that you communicate with any one of the several perfume supply houses advertising in our publication.

READERS' QUESTIONS

DEODORANT CREAM: Will you please let us have a formula of a deodorant cream similar to the brands advertised on a large scale in the United States? Baden bei Zurich..

I do not know the formulas of the preparations sold on the American market but quite a number of deodorants have been described from time to time in our publication. One of these consists of:

Glyceryl monostearate	**15.0**
Spermaceti	**5.0**
Methenamin	**3.0**
Glycerine	**8.0**
Water	**69.0**

ANTI-PERSPIRANT INGREDIENTS: In Chilson's "Modern Cosmetics" page 365 formula number 3 calls for specified quantities of alum and aluminum chloride. In order to make this formula more effective, would it be advisable to increase or even double the quantities of these ingredients? Would such an increase be harmful? Thibodaux.

The formula as given by Chilson is quite satisfactory. To excessively increase the proportions of the two ingredients might result in any one of several undesirable effects, such as: the formation of gritty crystals on the skin following drying of the lotion, increased possibility of skin irritation and the possibility of increased injury to fabrics.

BITTERS: Quite often we have noticed in your publication a section under which you frequently publish various kinds of formulae. We are interested in obtainng a formula of bitters. Any help you can give would be appreciated. Baltimore.

A typical formula for bitters is as follows:

Bitter orange peel	**1 oz.**
Angostura bark	**1 oz.**
Calamus	**1 oz.**
Cardamom	**160 grains**
Alcohol	**10 fl. oz.**
Water	**6 fl. oz.**

After this mixture has stood one week it is diluted to two to four gallons with 80 proof alcohol and filtered. It may be colored red with cochineal or cudbear.

LIQUID MASCARA: I have had a number of requests to prepare a mascara in liquid form. For a number of years I have been making a cake preparation but I am not very familiar with liquid products. Can you offer any help. Brooklyn.

A liquid type mascara may be formulated on lines similar to the following:

Rosin tincture (10%)	**21.5**
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EXPERIENCED PERFUMER wanted by old established raw material house. Very good ability to duplicate perfume compounds required. Good salary and excellent opportunity for the right man. Our employees know about this advertisement. State full particulars in first letter. Write Box No. N-5, DRUG & COSMETIC INDUSTRY.

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Help Wanted

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ONE of the leading companies manufacturing perfume aromatics and cosmetic specialties has an opening for an ambitious and experienced sales representative who is looking for a wider and a more profitable field for his selling ability. Replies, which should be in detail, will be held in entire confidence. Address Box N-1, DRUG & COSMETIC INDUSTRY.

BIO-CHEMIST, under 40, with pharmaceutical manufacturing experience to head manufacturing department of small midwest pharmaceutical company. Company entering expansion program. Very unusual opportunity for right man. Give full account of education, experience and starting salary expected; also references. All replies treated in strictest confidence. N-9, DRUG & COSMETIC INDUSTRY.

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INDUSTRIAL MINERALOGIST and inorganic chemist, Ph.D., Age 40, specialist in manufacturing and formulation of face powder desires consulting connection with large cosmetic firm. Experienced in engineering methods related to raw material processing and manufacture. Thorough knowledge of all plant control techniques. Registered Professional Engineer. Box N-12, DRUG & COSMETIC INDUSTRY.

COSMETIC CHEMIST, two university degrees and one year of post-graduated work in cosmetics. Chief chemist to nationally advertised firms. Best references. Box N-2, DRUG & COSMETIC INDUSTRY.

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PHARMACEUTICAL CHEMIST—10 years experience in purchasing, manufacturing and control of pharmaceutical and cosmetic preparations. Apply Box N-8, DRUG & COSMETIC INDUSTRY.

CHEMICAL EXECUTIVE—Knowledge of chemicals, raw materials, equipment, purchasing, production sales managing in the drug and cosmetic field desire position with a reliable concern. Box No. N-10, DRUG & COSMETIC INDUSTRY.

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STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912

Of The Drug and Cosmetic Industry, published monthly at Pittsfield, Mass., for October 1, 1946

State of New York, County of New York—ss.

Before me, a notary public in and for the State and county aforesaid, personally appeared Thomas R. Farrell, who, having been duly sworn according to law, deposes and says that he is the Editor of The Drug and Cosmetic Industry, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 443, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, Drug Markets, Inc., 101 West 31 St., New York, N. Y.; Editor, Thomas R. Farrell, 101 West 31 St., New York, N. Y.; Managing Editor, Elmer Sheets, 101 West 31 St., New York, N. Y., Business Manager, Frazer V. Sinclair, 101 West 31 St., New York, N. Y.

2. That the owner is: (If the publication is owned by an individual his name and address, or if owned by more than one individual the name and address of each, should be given below; if the publication is owned by a corporation the name of the corporation and the names and addresses of the stockholders owning or holding one per cent or more of the total amount of stock should be given.) Drug Markets, Inc., Frazer V. Sinclair, Thomas R. Farrell.

3. That the known bondholders, mortgagees, and other security holders owning or holding one per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

4. That the two paragraphs next above, giving the names of the owners, stockholders and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is (This information is required from daily publications only.)

Thomas R. Farrell, Editor.

Sworn before me this 6th day of September, 1946. Beth M. Fairclough, Notary Public.

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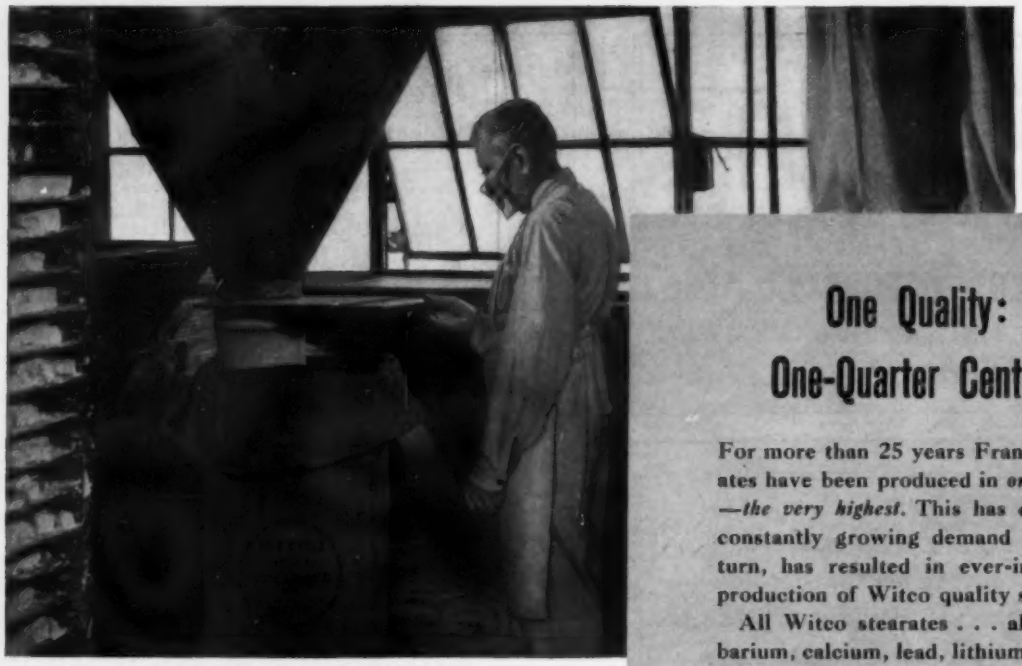

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